A.4.2

CLOSURE REPORT
STEAM CLEANER TANK SYSTEM

Mueller Brass Company
2199 Lapeer Ave.
Port Huron, MI 48060

In relation to:
Docket No. RCRA-05-2008-0016

Prepared by:
Kevin Pedler

Submitted to:
Bharat Mathur
USEPA REGION 5
77 W. Jackson Blvd.
Mail code: R-19J
Chicago, IL 60604-3507

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BRASS MUELLER INDUSTRIES, INC.

INTRODUCTION

1.1 Purpose: This closure report has been prepared for proof of remediation pertaining to a violation of the Resource Conservation and Recovery Act (RCRA) which was identified during a multi-media inspection performed at 2199 Lapeer Ave. in Port Huron, MI. The report summarizes closure activities conducted on site. These activities were accomplished in regard to the requirements of CAFO Docket No. RCRA-05-2008-0016, in congruence with the approved closure plan, and pursuant to the requirements of 40 CFR Part 265 subpart G. This report is intended to demonstrate that (1) no constituents are present at levels of concern in soils with proximity to the former steam cleaner pit area and (2) the need for further remediation at the former steam cleaner pit area has been eliminated.

1.2 Overview: Pursuant to the closure plan a properly certified contractor (App. D) HM Environmental Services Inc., was hired to perform decontamination of the area, characterize and dispose of all generated wastes (App. C), bore holes for soil sampling (App B), extract soil samples, and fill the sump area with new pavement. The soil samples were analyzed by Environmental Quality Laboratories (App. E).

DECONTAMINATION AND SOIL SAMPLING

2.1 Decontamination procedures: On Monday, May 11th of 2009 HM Environmental Services began decontamination of the steam clean pit area. To ensure worker health and safety a site safety plan was developed and reviewed by HM Environmental Services prior to site access (app D). As well, evidence of formal hazwopper training for all on-site personnel was provided (app D). An environmentally friendly degreaser (MSDS in app D) mixed with water was sprayed onto the walls and sump area of the room using a high pressure water feed. A vacuum truck was used to remove any waste generated from this operation and to prevent any water from flowing out the door of the room. Gratings over the sump area were also decontaminated with pressurized water and degreaser. All walls and floors were double rinsed as the pictures will demonstrate (app. A). No cracks or deterioration of concrete were observed that would indicate a potential for release. Three-hundred gallons of D008 waste were generated from this operation.

2.2 Waste disposal: As seen in the waste characterization report (app. C), the waste was characterized as hazardous with a lead concentration of 69ppm. It may be noted in the manifest (app. C) that a total of 300 gallons of waste were transported by HM Environmental Services to EQ Detroit for treatment and disposal.

2.3 Concrete Boring: Pursuant to the closure plan seven soil samples were taken to acquire an adequate representation of the current soil quality around the pit. HM Environmental performed the coring and sampling, and has provided a scope of work detailing these procedures (app. D). A layout of the exact locations of these borings is located in appendix B.

2.4 Sampling Procedures: Three soil samples were taken from beneath the floor of the pit, and one sample was taken from behind each side wall. The samples were taken from the soil 10" behind the walls and under the floor. As can be seen from the chain of custody (app E) the samples were received by Environmental Quality Laboratories on the 12th of May, 2009. Collected soil samples were analyzed for volatile organic compounds, semi-volatile organic compounds, and TCLP metals with the methods consistent with the closure plan.

BRASS MUELLER INDUSTRIES, INC.

Summary and Conclusions

3.1 Sampling Results: Laboratory analytical results are included in Appendix E. All sampling points were found to have a non-detectable quantity when being analyzed for semi-volatile organic compounds and volatile organic compounds. When the sampling points were analyzed for RCRA metals the following results were produced:

	RDL ppm	908 EF	909 EW	910 CF	911 WF	912 WW	913 NW	914 SW
Barium	.100	.439	.594	.470	.370	.403	.480	.447
Copper	.004	ND	.021	ND	.007	.165	ND	ND
Zinc	.050	ND	ND	ND	ND	5.41	ND	ND

All other metals analyzed were of a non detectable quantity for all sampling points.

3.2 Analysis of Results: Data used for background comparison with the collected samples came from Part 201 of Michigan's Natural Resource and Environmental Protection Act, Table 3 of R 299.5748 "Generic soil cleanup criteria for industrial and commercial II, III, and IV categories." It should be noted here that the material causing the hazardous characteristic in the analyzed waste was lead. Lead was not found in a detectable quantity in any sample. In fact, the only three testing criteria that had a detectable quantity were all well below the concentration required in the cleanup criteria guidance. Barium's highest point of sampling was .594ppm in the east wall of the pit. The cleanup criteria table provides a screening level for barium of 130,000ppm. Copper's highest concentration in sampling was .165ppm. The screening level for this metal is 73,000ppm. Zinc had one sampling point with a 5.41ppm concentration. Zinc's screening level is 690,000ppm.

3.3 Interpretation: Comparing the sampling results on a point by point basis to the Part 201 criteria it can be seen that there have been no exceedances at any individual sampling point. Moreover, it may be inferred from the relatively small size of the steam cleaner pit, the number of samples taken, and the fact that no hazardous materials were detected in any of the soil samples that there is very little likelihood a hot spot has been overlooked in the sampling technique.

3.4 Conclusion: Pursuant to the direction of Jim Day (MIDEQ WHMD) the steam cleaner pit has been filled with concrete and this final closure report is being submitted. Mr. Day was on-site 5/29/2009 to observe closure activities to date. After reviewing the supporting documentation, Mr. Day approved the completion of the pit closure through electronic mail 6/18/09 (App. F). On 6/19/09 the steam cleaner pit was backfilled with concrete.

Closure Certification

Facility Name: Mueller Brass Company

SITE Identification Number: MID 005 357 504

Docket No.: RCRA-05-2008-0016

Name of Unit(s) Being Closed: Steam Cleaning Storage Tank System

The hazardous waste management unit identified above has been closed in accordance with the specifications in a plan approved with conditions and modifications by the Michigan DEQ. A report demonstrating the closure carried out in accordance with the approved plan is attached.

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature of Owner/Operator _____ Date 6/23/09

Name and Title of Owner/Operator: James H. Rourke
President – Industrial Product Division, Mueller Industries

Signature of Licensed P.E. _____ Date 6/23/09

Name of Licensed P.E.: Keith Flemingloss

MI License No.: 35825

Mailing Address of P.E.:
Keith Flemingloss, P.E.
209 Huron Ave., Suite 3
Port Huron, MI 48060

Licensed P.E.'s Seal:

Appendix A

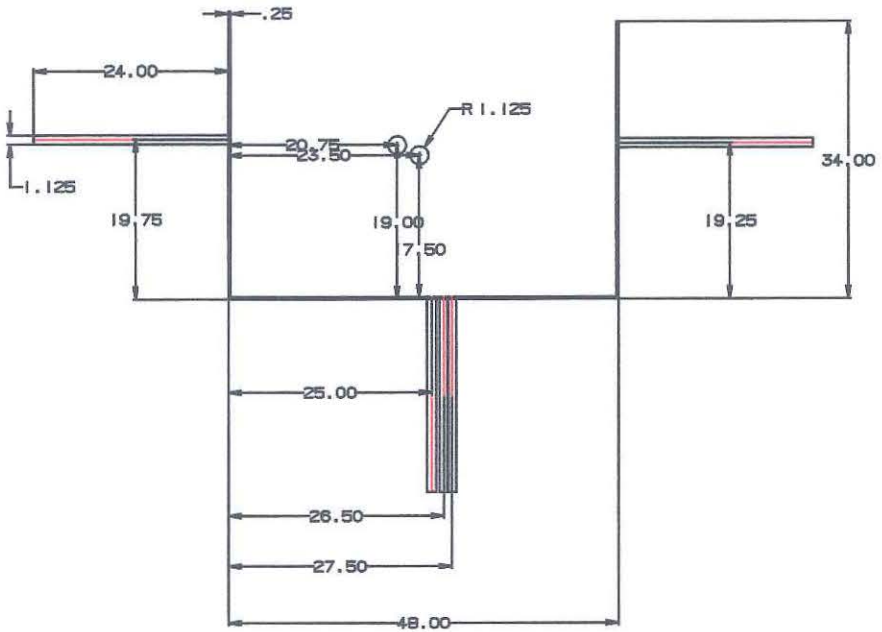
**A picture of the steam clean pit room after decontamination.

**Picture of pit after decontamination, concrete boring, and soil extraction.

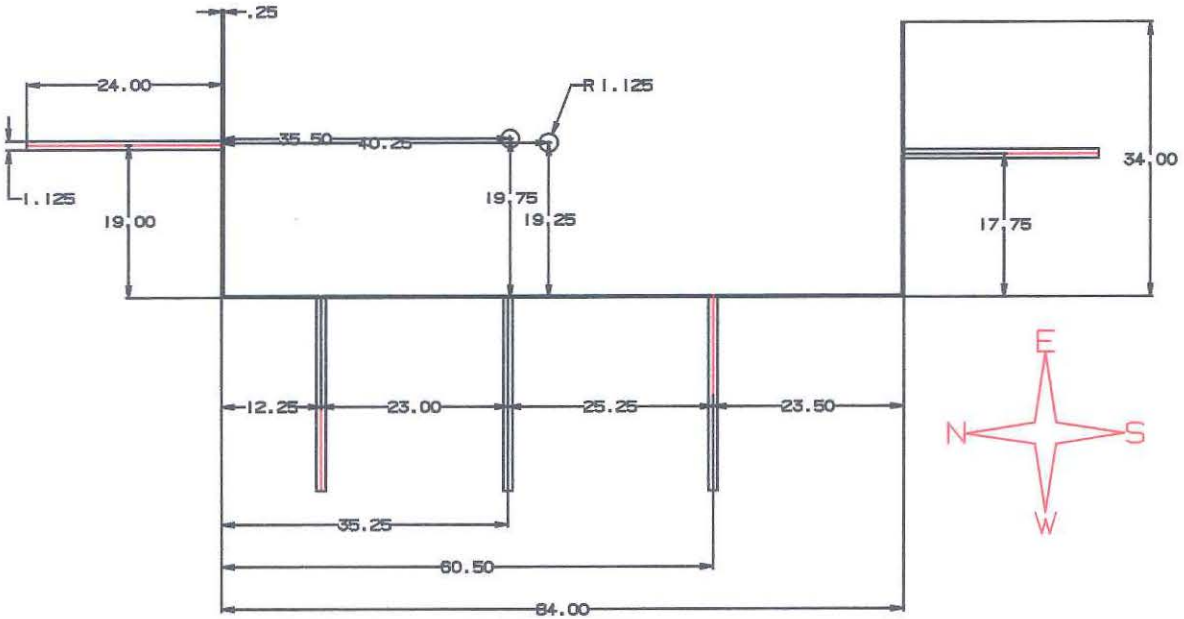
**Picture of steam cleaner pit after being backfilled with concrete.

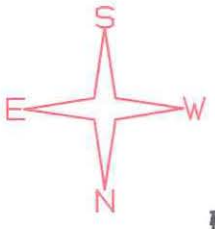
Appendix B

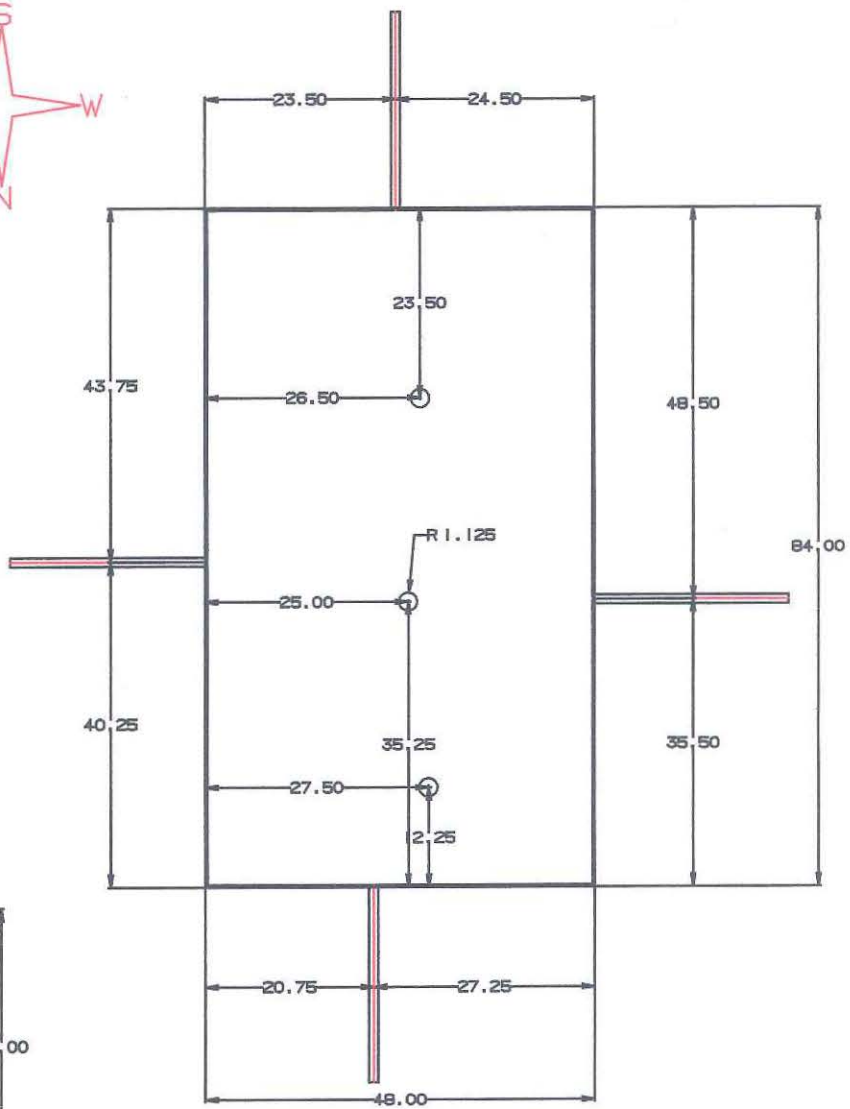
FRONT VIEW



SIDE VIEW







TOP VIEW

Appendix C

EQ - The Environmental Quality Company
Waste Characterization Report

☐ *I authorize EQ - The Environmental Quality Company to choose the appropriate method of waste management, from the technologies offered, at the EQ facilities identified below.*

☐	**Michigan Disposal Waste Treatment Plant** (Stabilization and Treatment)	49350 North I-94 Service Drive, Belleville, Michigan 48111 Phone: 1-800-592-5489 Fax: 1-800-592-5329	EPA ID #MID000724831
☐	**Wayne Disposal, Inc.** (Hazardous & PCB Waste Landfill)	49350 North I-94 Service Drive, Belleville, Michigan 48111 Phone: 1-800-592-5489 Fax: 1-800-592-5329	EPA ID #MID048090633
☑	**EQ Detroit, Inc.** (Stabilization, Wastewater Treatment)	1923 Frederick, Detroit, MI 48211 Phone: 1-800-495-6059 Fax: 1-313-923-3375	EPA ID #MID980991566
☐	**EQ Resource Recovery, Inc.** (Solvent Recycling, Fuel Blending, WW Treatment)	36345 Van Born Road, Romulus, Michigan 48174 Phone: (734) 727-5500 Fax: (734) 326-4033	EPA ID #MID060975844
☐	**EQ Florida, Inc.** (Drum Consolidation, Labpack Decommissioning)	7202 East Eighth Ave., Tampa, FL 33619 Phone: 1-800-624-5302 Fax: 1-813-628-0842	EPA ID #FLD981932494
☐	**EQ Detroit Transfer and Processing** (Drum Transfer/Universal Waste Handling)	2000 Ferry Street, Detroit, MI 48211 Phone: (313) 923-0080 Fax: (313) 922-8419	EPA ID #MIK939928313
☐	**EQIS Indianapolis Transfer and Processing** (Drum Transfer/Non-Hazardous Waste Processing)	2650 N. Shadeland Avenue, Indianapolis, IN 46219 Phone: (317) 247-7160 Fax: (317) 247-7170	EPA ID #IND161049309
☐	**EQIS Atlanta Transfer and Processing** (Drum Transfer/Non-Hazardous Waste Processing)	5600 Fulton Industrial Blvd., Atlanta, Georgia 30336 Phone: (404) 494-3520 Fax: (404) 494-3560	EPA ID #GAR000039776
☐	**EQ Augusta, Inc.** (Wastewater Treatment)	3920 Goshen Industrial Blvd., Augusta, GA 30906 Phone: 706-771-9100 Fax: 706-771-9124	EPA ID #GAR000011817

Waste Common Name: PART CLEANING PIT SLUDGE

Section 1 - Generator & Customer Info

SIC/NAICS*:

Generator EPA ID: MID---

Generator: MUELLER INDUSTRIES
Address: 2199 LAPEER AVE
City: PORT HURON
State: MI Zip: 48060
County: ST. CLAIR

Mailing Address
Address: 2199 LAPEER AVE
City: PORT HURON
State: MI Zip: 48060

Generator Contact
Name: KEVIN PEDLER
Title:
Phone: (810) 434-2713
Fax: ( ) -

*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

EQ Customer No.: 2651

Invoicing Company
Company: HM ENVIRONMENTAL SERVICES, INC.
Address: 42826 NORTH WALNUT STREET
City: MT CLEMENS
State: MI Zip: 48043
Country: USA

Invoicing Contact
Name: TINA KING
Phone: (586) 469-0041
Fax: (585) 469-1014

Technical Contact
Name: BOB MACKINDER
Phone: (586) 469-0041
Fax: (586) 469-1014
Mobile: (586) 413-4000 Pager: ( ) -
E-mail: bmackinder@hmenvironmental.com

Section 2 - Shipping & Packaging Info

2.1) Shipping Volume & Unit: 1500 GALLONS Frequency: One Time Only

2.2) DOT Shipping Name: HAZARDOUS WASTE LIQUID, NOS (LEAD) 9, NA3082, PGIII

2.3) Is this waste surcharge exempt? ○ Yes ● No (If you answered "Yes" to question 2.3, select the Surcharge Exemption reason.)

2.4) Packaging (check all that apply)

- ☐ Bulk Solid (yd ^{3}< 2000 lbs/yd ^{3})
- ☐ Totes, Size
- ☐ Other (palletized, 5 gal. Pail, etc.)
- ☐ Bulk Solid (Ton > 2000 lbs./yd ^{3})
- ☐ Cubic Yard Boxes/Bags
- ☑ Bulk Liquids (Gallon)
- ☐ Drums, Size

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

Section 3 - Physical Characteristics

3.1) Color: BLACK, BROWN 3.2) Odor: NONE

3.3) Does this waste contain any "Potentially Odorous Constituents" as defined in the EQ Resource Guide? (Section 3) ○ Yes ● No

3.4) Physical State at 70 °F: ☐ Solid ☐ Dust/Powder ☐ Liquid ☑ Sludge

3.5) What is the pH of this waste? ☐ ≤ 2 ☐ 2.1-4.9 ☑ 5-10 ☐ 10.1-12.4 ☐ ≥ 12.5

3.6) What is the flash point of this waste? ○ <90 °F ○ 90-139 °F ○ 140-199 °F ● ≥ 200 °F

3.7) Does this waste contain? (check all that apply)

☐ None	☑ Free Liquids	☑ Oily Residue	☐ Metal Fines		
☐ Biodegradable Sorbants	☐ Amines	☐ Ammonia	☐ Water Reactive	☐ Biohazard	☐ Aluminum
☐ Shock Sensitive Waste	☐ Reactive Waste	☐ Radioactive Waste	☐ Explosives	☐ Pyrophoric Waste	☐ Isocyanates
☐ Asbestos - non-friable	☐ Asbestos - friable	☐ Dioxins	☐ Furans		

Section 4 - Composition / Generating Process

4.1) Describe the physical composition of the waste (i.e., soil, water, PPE, debris, key chemical compounds, etc.)

4.2) Provide a detailed description of the process generating this waste. (attach flow diagram if available).

POWER WASH CLEAN A PARTS CLEANING PIT AND GRATING, GREASE AND OIL REMOVED FROM MACHINERY AND PARTS.

Section 5 - Is This Hazardous Waste?

Please refer to Section 5 of the EQ Resource Guide for a list of waste codes.

As determined by 40 CFR, Part 261 and Michigan Act 451 Rules: **Please list applicable waste code(s):**

5.1) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ○ Yes ● No

Comments:

5.2) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ● Yes ○ No

Comments: D008

5.3) Do any State Hazardous Waste Codes apply? ○ Yes ● No

Comments:

5.4) Is this waste intended for wastewater treatment? ○ Yes* ● No

If you answered "No" to questions 5.1, 5.2, and 5.3, please skip to Section 7.
****If you answered "Yes" to question 5.4, please complete the WCR Addendum.***

Section 6 - Hazardous Wastes

6.1) Does this waste exceed Land Disposal Restriction Levels? ● Yes ○ No

6.1a) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? ○ Yes ● No

6.1b) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ○ Yes ● No

6.2) Is the waste an oxidizer (D001)? ○ Yes ● No

6.3) Does this waste contain reactive cyanide ≥ 250 ppm (D003)? ○ Yes ● No

6.4) Does this waste contain reactive sulfide ≥ 500 ppm (D003)? ○ Yes ● No

6.5) Please indicate which constituent concentrations are below or above the regulatory level. Please indicate the basis used in the determination. Either 'Below' or 'Above' **MUST** be checked for each constituent.

Based On: ● **Generator Knowledge** ○ **Analysis*** ○ **MSDS***

***Please forward a copy. Analysis or MSDS are required for EQ Florida Non-hazardous wastes.**

Code	Regulatory Level TCLP (mg/l)				Concentration (if above)
D004	Arsenic	5	● Below	○ Above	
D005	Barium	100	● Below	○ Above	
D006	Cadmium	1	● Below	○ Above	
D007	Chromium	5	● Below	○ Above	
D008	Lead	5	○ Below	● Above	69
D009	Mercury	0.2	● Below	○ Above	
D010	Selenium	1	● Below	○ Above	
D011	Silver	5	● Below	○ Above	
D012	Endrin	0.02	● Below	○ Above	
D013	Lindane	0.4	● Below	○ Above	
D014	Methoxychlor	10	● Below	○ Above	
D015	Toxaphene	0.5	● Below	○ Above	
D016	2,4-D	10	● Below	○ Above	
D017	2,4,5-TP (Silvex)	1	● Below	○ Above	
D018	Benzene	0.5	● Below	○ Above	
D019	Carbon Tetrachloride	0.5	● Below	○ Above	
D020	Chlordane	0.03	● Below	○ Above	
D021	Chlorobenzene	100	● Below	○ Above	
D022	Chloroform	6.0	● Below	○ Above	
D023	o-Cresol	200	● Below	○ Above	

Code	Regulatory Level TCLP (mg/l)				Concentration (if above)
D024	m-Cresol	200	● Below	○ Above	
D025	p-Cresol	200	● Below	○ Above	
D026	Cresols	200	● Below	○ Above	
D027	1,4-Dichlorobenzene	7.5	● Below	○ Above	
D028	1,2-Dicholoroethane	0.5	● Below	○ Above	
D029	1,1-Dichloroethylene	0.7	● Below	○ Above	
D030	2,4-Dinitrotoluene	0.13	● Below	○ Above	
D031	Heptachlor	0.008	● Below	○ Above	
D032	Hexachlorobenzene	0.13	● Below	○ Above	
D033	Hexachlorobutadiene	0.5	● Below	○ Above	
D034	Hexachloroethane	3.0	● Below	○ Above	
D035	Methyl Ethyl Ketone	200	● Below	○ Above	
D036	Nitrobenzene	2	● Below	○ Above	
D037	Pentachlorophenol	100	● Below	○ Above	
D038	Pyridine	5	● Below	○ Above	
D039	Tetrachloroethylene	0.7	● Below	○ Above	
D040	Trichloroethylene	0.5	● Below	○ Above	
D041	2,4,5-Trichlorophenol	400	● Below	○ Above	
D042	2,4,6-Trichlorophenol	2	● Below	○ Above	
D043	Vinyl Chloride	0.2	● Below	○ Above	

6.6) If this is a characteristic hazardous waste, does it contain underlying hazardous constituents? ● Yes ○ No

If you answered 'Yes', please list the constituents in Section 11.

Section 7 - Non-Hazardous Wastes

For a complete list of non-hazardous waste codes, please refer to Section 7 of the EQ Resource Guide.

Applicable waste code(s):

7.1) Is this a Michigan non-hazardous liquid industrial waste? ○ Yes ● No 029L

Comments:

7.2) Is this a Universal waste? ○ Yes ● No

7.3) Is this a Recyclable Commodity? (e.g.: computer monitors, free mercury, etc.) ○ Yes ● No

7.4) Is this waste a recoverable petroleum product? ○ Yes ● No

7.5) Is this waste used oil as defined by 40 CFR Part 279? ○ Yes ● No

Section 8 - TSCA Information

8.1) What is the concentration of PCBs in the waste? ◉ None ○ 0-5 ppm ○ 6-49 ppm ○ 50-499 ppm ○ 500+ ppm

8.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ○ Yes ○ No

If you answered 'None' to 8.1 and 'No' to 8.2, please skip to Section 9.

8.3) Has this waste been processed into a non-liquid form? ○ Yes ○ No

If yes, what was the concentration of PCBs prior to processing? (ppm) ○ N/A ○ 0-499 ○ 500+

8.4) Is the non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ○ Yes ○ No

8.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ○ Yes ○ No

8.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ○ N/A ○ Yes ○ No

Section 9 - Clean Air Act Information

9.1) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD or 40 CFR, Part 264, Subpart CC (RCRA)? ○ Yes ◉ No
(Does the waste contain >500 ppm Volatile Organic Hazardous Air Pollutants - VOHAP's or Volatile Organic Compounds - VOC's?)
For a complete list of VOHAPs, please see Section 11 of the EQ Resource Guide.

9.2) Is this site, or waste, subject to any other MACT or NESHAP? ○ Yes ◉ No
If yes, please specify:

9.3) Does this waste stream contain Benzene? ○ Yes ◉ No
If you answered "No" to question 9.2, please skip to section 10.

9.4) Does the waste stream come from a facility with one of the SIC/NAICS codes listed under the Benzene NESHAP identified in 40 CFR 61, Subpart FF? ○ Yes ◉ No

9.5) Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) ≥ 10 Mg/year? ○ Yes ◉ No
For assistance in calculating the TAB, please see the TAB Worksheet in Section 9 of the EQ Resource Guide.

If you answered "No" to question 9.3 and 9.4, please skip to Section 10.

9.6) Does the waste contain > 10% water? ◉ Yes ○ No

9.7) What is the TAB quantity for your facility? Mg/year

9.8) Does the waste contain >1.0 mg/kg total Benzene? ○ Yes ◉ No

9.9) What is the total Benzene concentration in your waste? (concentration) (unit)

(Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.)

*For a list of NAICS codes, please refer to section 9 of the EQ Resource Guide.

Section 10 - Fuel Blending Information

10.1) Is this waste intended for fuel blending? ○ Yes* ◉ No

If you answered 'Yes' to question 10.1, please enter the following:

Heat value (BTU/lb.) _____

Chlorine (%) _____

Water (%) _____

Solids (%) _____

10.2) Is this waste intended for reclamation? ○ Yes ◉ No (5-Gallon Sample required for all reclaim waste streams)

Section 11 - Constituent Information

Please identify your waste constituents from these four categories: **Underlying Hazardous Constituents (UHC's), Volatile Organic Hazardous Air Pollutants (VOHAP's), Volatile Organic Compounds (VOC's) and Toxic Release Inventory Constituents (TRI)**

Constituent	Concentration	UHC?
Cadmium	0.3 ppm	○ Yes ◉ No

Please see Section 11 of the EQ Resource Guide for a list of UHC's, VOHAP's and VOC's. For a complete list of TRI constituents, please refer to 40 CFR 372.65.

Section 12 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's Resource Team to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

Comments:
logged in

Generator: Kevin Pedler — Kevin Pedler

Authorized Generator Signature — *Printed Generator Name*

Company: Mueller Brass Co Title: EHS coordinator Date: 4-29-09

The generator's signature MUST appear on the EQ Waste Characterization Report. If the generator has authorized a third party to certify this document, a written notice (on generator letterhead) must accompany this submittal. Although the EQ Resource Team is authorized to make certain modifications to the information provided on this form, the addition or removal of waste codes and waste constituents must be documented by the generator.

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Characterization Report, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions.

The following definitions shall apply for purposes of this Agreement:

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Characterization Report and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Characterization Report (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Characterization Report containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Characterization Report, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Characterization Report.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Characterization Report. The information set forth in the Waste Characterization Report or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Characterization Report, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statues, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws.

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MID 005 357 504	1	(586)469-0041	004781634 JJK

GENERATOR

5. Generator's Name and Mailing Address
MUELLER BRASS
2199 LAPEER
PORT HURON, MI 48060
Generator's Phone: (810)434-2713

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
HM Environmental

U.S. EPA ID Number
MIR 000 017 079

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
EQ-DETROIT, INC
1923 FREDERICK STREET
DETROIT, MI 48211
Facility's Phone: (313)923-0040

U.S. EPA ID Number
MID 980 991 566

9a HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, HAZARDOUS WASTE, LIQUID, N.O.S. (D008), 9, NA 3082, PG III	001	TT	300	G	D008		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1) PRESS PIT OIL & WATER APPROVAL#D 097341 DET

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Kevin Sadler | Signature | Month 05 | Day 11 | Year 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Keith Olsen | Signature | Month 05 | Day 11 | Year 09

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month 05 | Day 11 | Year 09

Land Disposal Restriction & Certification Form

Please check the appropriate facility:

☐ **Michigan Disposal Waste Treatment Plant**	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724 831
☐ **Wayne Disposal, Inc. Site #2 Landfill**	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
☒ **EQ Detroit, Inc.**	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
☐ **EQ Resource Recovery, Inc.**	36345 Van Born Road, Romulus, MI 48174	EPA ID # MID 060 975 844
☐ **EQ North Carolina**	1005 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
☐ **EQ Florida, Inc.**	7202 East 8th Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: Mueller Brass **U.S. EPA ID No.:** MID 005 357 504

Generator Address: 2199 Lapeer, Port Huron, MI 48060

State Manifest No.: 004781634 JJK **Manifest Doc. No.:**

Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.
Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).
Column 3: Enter the appropriate Subcategory, if applicable. Also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 40 CFR 268.49 (c) – soil, or 40 CFR 268.45 – debris.
Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.
Column 5: For F001 – F005, F039, D001 – D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	D008	NWW		A	204
11B					
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: Kevin Pedler **Title:** EHS Coordinator

Printed Name: Kevin Pedler **Date:** 05/11/09

How Must the Waste Be Managed?

S. THIS CONTAMINATED SOIL *DOES / DOES NOT* (CIRCLE ONE) CONTAIN LISTED HAZARDOUS WASTE AND *DOES / DOES NOT* (CIRCLE ONE) EXHIBIT A CHARACTERISTIC OF HAZARDOUS WASTE AND *IS SUBJECT TO / COMPLIES WITH* (CIRCLE ONE) THE SOIL TREATMENT STANDARDS AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Appendix D

HM
ENVIRONMENTAL
SERVICES Inc.

42826 N. Walnut
Mt. Clemens, MI 48043
Phone (586) 469-0041
Fax (586) 469-1014

June 16, 2009

Mr. Kevin Pedler
MUELLER INDUSTRIES
2199 Lapeer Ave
Port Huron, MI 48060

STEAM CLEANING PIT CLOSURE

Dear Sir:
HM Environmental Services performed cleaning, soil sampling and analytical testing on May 12, 2009 in accordance with the closure plan supplied to us by Mueller Industries and NTH Environmental Consultants.

All areas pertaining to our job scope had been carried out as outlined below, and all Standard Operating Procedures were followed according to the closure plan submitted

- Clean and/or decontaminate the steam-cleaning room equipment, grating, pavement surfaces, and surfaces of the concrete sump;
- Characterize, remove, and properly dispose of cleaning residuals from the steam-cleaning room and concrete sump;
- Inspect the cleaned surfaces of the former steam-cleaning pad and concrete sump for cracks or potential damage;
- Investigate the soils beneath and in the immediate vicinity of the steam cleaning pad and concrete sump. Potential sampling locations will be determined based upon the results of the inspection of the decontaminated surfaces. Cracked areas will be targeted for the investigation. It is anticipated that it may not be possible to remove the concrete sump due to its proximity and/or integration with portions of the building's walls. Although the concrete may not be able to be removed, Mueller proposes to core through the concrete/pavement in the former steam-cleaning room to access soils beneath and adjacent to the concrete pad and sump area. Consistent with guidance contained in Chapter 1, section 1.3.1 of the MDEQ's "Sampling Strategies and Statistics Training materials for Part 201 Cleanup Criteria" (S3TM), Mueller intends to collect 3 "floor" soil samples and 4 samples representing "sidewall" soil samples in the vicinity of the concrete sump. Fieldwork and environmental sampling will be conducted consistent with NTH's standard operating procedures referenced in Attachment 1 to this work plan.

Collected soil samples will be analyzed for the following parameters:

o Volatile organic chemicals using SW-846 method 8260,
o Semi-volatile organic chemicals using SW-846 method 8270, and
o RCRA metals.

Please feel free to contact me should you have any questions or require any further information regarding this project at (586) 469-0041.

Yours truly,
Bob Mackinder
Bob Mackinder/Sales Manager

HM
ENVIRONMENTAL
SERVICES Inc.

42826 N. Walnut
Mt. Clemens, MI 48043
Phone (586) 469-0041
Fax (586) 469-1014

Site Safety Plan For:

MUELLER INDUSTRIES
PORT HURON, MI

Prepared By:
R. MACKINDER

Date:

5-1-09

H M Environmental Services Inc.
Site Health and Safety Plan

Outline

1. **Project Description**
2. **Work Performed By**
3. **Job Scope**
4. **Site Address**
5. **Contact Personnel**
6. **Facility Description**
7. **Hazardous Materials Description**
8. **Decontamination Procedures**
9. **Personal Protective Equipment**
10. **Emergency Telephone List Directions to Hospital**
11. **Work Scope**
12. **Team Organization**
13. **Hazard Communication Program**
    - A. **Field Operations Chemical List**
    - B. **Material Safety Data Sheets**

Site Safety Plan
H M Environmental Services Inc.

1. **Project:** PARTS CLEANING ROOM & PIT CLEANING
2. **Work Performed By:** HM ENVIRONMENTAL SERVICES, INC.
3. **Job Scope:** DECONTAMINATE WALLS, FLOOR & PIT
4. **Site Address:** 2199 LAPEER AVE, PORT HURON, MI
5. **Contact Personnel:** KEVIN PEDLER
6. **Facility Description:** BRASS MFG
7. **Hazardous Materials Descriptions:**

   A. **Liquid___X__ Solid_____ Sludge___X___ Vapor/Gas_____**

   B. **Chemical Name/Class:**

   C. **Characteristics: Corrosive_____ Ignitable_____ Volatile_____**

   D. **Toxicity:**

   E. **Special Hazards:**

   LEAD_____

   _____

   F. **Acute Exposure Syptoms:** _____

   _____

   _____

   _____

   _____

G. **Routes of Exposure:** **Skin___X__ Ingestion_____ Inhalation_____**

H. **Hazard Level: High_____ Moderate_____ Low___X_ Unknown_____**

I. **Physical hazard of site:** (Taken to account, operational concerns, reactivity, decontamination, stability, flammability, etc. _____N/A_____

_____

8. **Decontamition Procedures:**

LEVEL A - Segregate equipment, drop boot covers and wash gloves. Remove tape, remove outer gloves, outer suit. Remove hard hat, SCBA, backpack, inner gloves, inner protective coveralls. Conduct field wash and redress.
LEVEL B - Segregate equipment, drop boot covers and wash gloves. Remove tape and outer gloves,SCBA,suit, hard hat, inner gloves, field wash and redress.
LEVEL C - Segregate equipment, drop boot covers and wash gloves, remove boot covers, outer gloves, (canister or mask removal), safety boot removal, suit removal, inner glove removal, field wash, redress.
LEVEL D - Segregate equipment, boot and glove drop, wash hands and face in designated facility.

9. **Personal Protective Equipment:**

A. Entry level of protection **A_____ B_____ C___X__ D_____**

Modifications:_____

B. Respiratory protection equipment:
SCBA_____ Full Face Respirator_____ Cartridge Type_____
Half Face Respirator___X__ Cartridge Type__DUST

C. Protective Clothing:

LEVEL A - should be worn when the highest level of respiratory, skin,eye, and mucas membrane protection is needed.

_____ Positive - Pressure (Pressure demand), SCBA (MIOSHA/NIOSH) (REQUIRED)
_____ Fully encapsulated chemical resistant suit. (REQUIRED)

_____ Gloves, inner, chemical resistant. (REQUIRED)

____ Gloves, outer, chemical resistant. (REQUIRED)

_____ Boots, chemical resistant, steel toed and shank. (REQUIRED)
_____Hard hat (REQUIRED)

_____ Coveralls (under suit)

_____ Two-way Radio communication

LEVEL B protection should be selected when the highest level of respiratory protection is needed, but a lesser level of skin and eye protection. LEVEL B protection is the minimum level recommended on initial site entry until the

hazards

have been further identified and defined by monitoring, sampling, and other reliable methods of analysis.

_____ Positive - Pressure (pressure demand), SCBA (MIOSHA/NIOSH approved) (REQUIRED)

_____ Chemical resistant clothing (overalls, jacket overalls, hooded two piece chemical splash suit, disposable chemical resistant) (REQUIRED)

_____ Coveralls (under splash suit)

_____ Boots, inner, chemical resistant, steel toe & shank (REQUIRED)

_____ Boots, outer, chemical resistant

_____ Hard hat

_____ Two-way radio communications.

LEVEL C protection should be selected when a type of airborne substance is known.

_____ Full face, air purifying respirator (MIOSHA/NIOSH approved) (REQUIRED)

_____ Chemical resistant clothing (one piece coverall, hooded two piece chemical splash suit, chemical resistant hood and apron, disposable chemical resistant coveralls) (REQUIRED)

___X__Gloves, outer, chemical resistant (REQUIRED)

_____Gloves, inner, chemical resistant (REQUIRED)

__X_ Boots, Steel toe and shank, chemical resistant (REQUIRED)

__X_ Cloth coveralls (inside chemical protective clothing)

_____Two-way radio communications

_____ Hard hat

LEVEL D is primarily a work uniform. It should not be worn on any site where respiratory or skin hazards exist.

___X_ Safety glasses

Hard hat

Steel toed and steel shank boots

10. **Emergency Telephone List Directions to Hospital**

The project Foreman and each group coordinator be equipped with an emergency notification devise to alert all work crew members in case of an emergency situation.

Emergency notification will be two short blasts with a horn in repeated intervals of

(5) seconds. Upon hearing the emergency notification, the project Foreman and group coordinator(s) will direct all personnel to a pre-determined Safe Zone. The Project Foremanwill be responsible for coordinating any necessary first aid procedures and implementing any other required emergency action.

Emergency Telephone List

Immediate Verbal Notification

- Pollution Emergency Alerting System (PEAS), 800-292-4706/Michigan Department of Environmental Quality (MDEQ) at 734-953-8905
- United States Environmental Protection Agency (USEPA) Region V, at 312-353-2318 (24-hour),
- National Response Center at 800-424-8802,
- Local Emergency Planning Committee (LEPC), 810-989-6965,
- Marine Pollution Control 313-849-2333, and
- Port Huron Fire Department 911
- Port Huron Waste Water Treatment Plant at 1-810-984-9775 contact person Mr. Randy Studaker or person on duty.

As Required

- Port Huron Hospital, 810-987-5000 Mercy Hospital, 810-985-1500 or Emergency 911.

Chemtrec

1-800-424-9300

In the event of an accidental or intentional release of "Hazardous Substance" in a reportable quanity, the person in charge shall notify:

U. S. Coast Guard - National Response Center: 1-800-424-8802

State Notification:

Michigan DNR Pollution Emergency Alert:	1-800-292-4706
Ohio	1-800-282-9378
Indiana	1-317-633-0144
Illinois	1-217-782-7860
Wisconsin	1-608-266-3232
Other	_____
U. S. Department of Transportation	1-202-426-1830

11. Work Scope

Definition of Work Scope tasks:

Task 1- **Site safety meeting**

Task 2- **Prepare area for cleaning (plastic over electrical panels)**

Task 3 - **Degrease surfaces (bio degradable)**

Task 4 - **Vacuum liquid and sludge**

Task 5 - **Final wash**

12. Team Organization

Personnel (In order of chain of command)

Name: **Steve Howard** Funtion/Title: **Supervisor** Company: **HM Env.**

. Warren Worthem	Technician	HM Env.
Steve Morris	Operator	HM Env.
Tom Danko	Operator	HM Env.

13. Hazard Communication Program

A. Field Operational Chemical List

Job Name: MUELLER IND. PARTS CLEANING PIT

Location: MUELLER BRASS, PORT HURON, MI

1. **POLAR INC. CITRUS BASED DEGREASER- NON/REGULATED**
2.
3.
4.
5.
6.

Material Safety Data Sheets (MSDS) are available for employee and sub-contractors review at there request.

Verification that each person has read and understands this Health and Safety Plan. Also, the Hazards associated with the information stated in this Site Safety Plan.

By Signing this Form, I agree to abide by all safety requirements as outlined above.

Name (print)	**Signature**	**Date**
Steve Howard	Steve Howard	5-11-2009
Keith Olsen	Keith Olsen	"
Shawn Beasley	Shawn Beasley	"

Warren Worthen Wamble 5-11-2009

THIS CERTIFICATE IS PRESENTED TO

Stephen Howard

FOR SUCCESSFUL COMPLETION OF

8-HOUR REFRESHER TRAINING PER 29 CFR 1910.120(P) & (Q) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER)

ON FEBRUARY 16, 2009.

Catherine Gibbons, CHMM
Environmental Professional

Enviroair Consultants, Inc.

Certificate of Completion

Presented To

Stephen Howard

For Successfully Completing

CONFINED SPACE ENTRANT, ATTENDANT, & ENTRY SUPERVISOR TRAINING

Enviroair is a member of

On this 17th day of May 2006

Brad A. Fashbaugh

The Argus Group
Registered ISO 9002

Brad A. Fashbaugh, Instructor

American Heart Association.
Learn and Live.

Heartsaver® AED

Stephen Howard

This card certifies that the above individual has successfully completed the objectives and skills evaluations in accordance with the curriculum of the AHA for Heartsaver AED Programs.

Modules Completed: Ⓐ Ⓑ Ⓒ

June 2006
Issue Date

June 2009
Recommended Renewal Date

AHA Region: Michigan

Training Center: Medstar Ambulance

Training Site: Medstar Ambulance

Instructor: Joe Zyck

Holder's Signature: Stephen M. Howard

API WorkSafe

Safety Key

Name: Stephen Howard

Company: HM Environmental Services, Inc.

Completed: 09-Dec-08 01:29 PM

Expires: 09-Dec-09

Key #: 12210568

I acknowledge that I have personally completed the API WorkSafe training

Signature: Stephen M. Howard

Date: 12-9-08

THIS CERTIFICATE IS PRESENTED TO

Steven Morris

FOR SUCCESSFUL COMPLETION OF

8-HOUR REFRESHER TRAINING PER 29 CFR 1910.120(P) & (Q) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER)

ON FEBRUARY 16, 2009.

Catherine Gibbons

Catherine Gibbons, CHMM
Environmental Professional

API WorkSafe

Safety Key

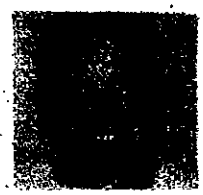
Name: Steven Morris

Company: HM Environmental Services, Inc.

Completed: 16-Jun-08 03:55

Expires: 16-Jun-09

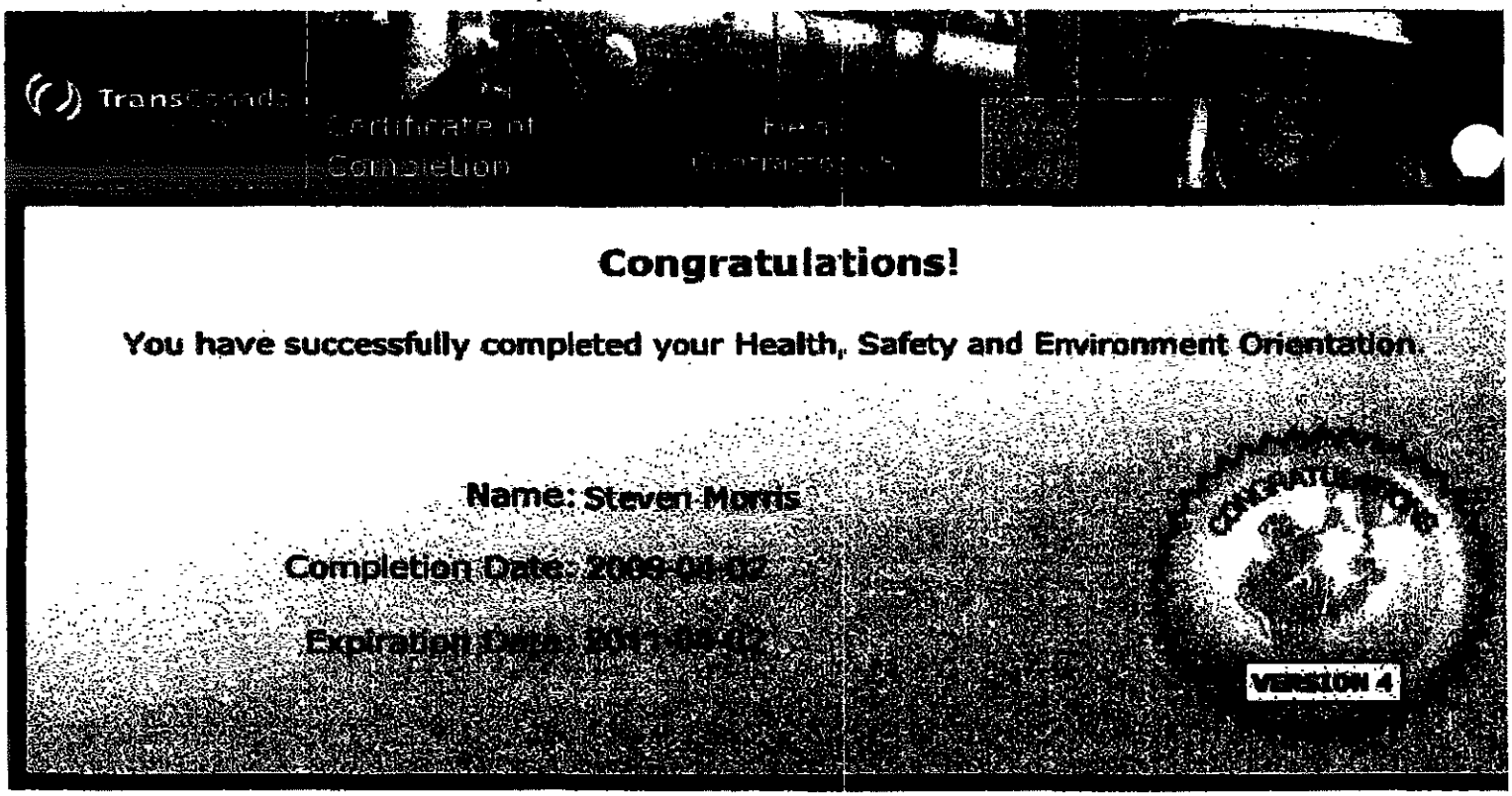
Key# 47803324



I acknowledge that I have personally completed the API WorkSafe training

Signature

Date 06-17-08


TransCanada
Certificate of
Completion
Congratulations!
You have successfully completed your Health, Safety and Environment Orientation.
Name: Steven Morris
Completion Date: 2009-04-02
VERSION 4

740100

State of Michigan
Department of State Police

FIRE FIGHTERS TRAINING COUNCIL

Hereby certifies that

STEVEN M MORRIS

has successfully completed
the requirements for

HAZMAT FIRST RESPONDER - OPERATIONS

on June 27, 1999

in accordance with the standards established by the Fire Fighters Training Council

Craig E. Miller
INSTRUCTOR

1999-2P-74-F02B-0215
COURSE / EXAM NUMBER

CHAIRMAN

DIRECTOR OF TRAINING

B154575

National Registry of Emergency Medical Technicians℠

Hereby certifies

Steven M. Morris

as a

Emergency Medical Technician - Basic

duly registered together with all the rights, and privileges appertaining thereto in consideration of the satisfactory completion of the prescribed educational requirements.

In Testimony Whereof, the seal of the National Registry of Emergency Medical Technicians and the signatures as authorized by the Board of Directors are hereunto affixed.

this Twenty-second day of March 2004 A.D.

Chairman of the Board

Executive Director

State of Michigan
Department of State Police

FIRE FIGHTERS TRAINING COUNCIL

Hereby certifies that

STEVEN M MORRIS

has successfully completed
the requirements for

HAZMAT FIRST RESPONDER - OPERATIONS

on **June 27, 1999**

in accordance with the standards established by
the Fire Fighters Training Council

Craig E. Miller
INSTRUCTOR

1999-2P-74-F02B-0215
COURSE / EXAM NUMBER

CHAIRMAN

DIRECTOR OF TRAINING

B15[illegible]750

National Registry of Emergency Medical Technicians℠

Hereby certifies

Steven M. Morris

as a

Emergency Medical Technician - Basic

duly registered together with all the rights, and privileges appertaining thereto in consideration of the satisfactory completion of the prescribed educational requirements.

In Testimony Whereof, the seal of the National Registry of Emergency Medical Technicians and the signatures as authorized by the Board of Directors are hereunto affixed.

this Twenty-second day of March 2004 A.D.

Chairman of the Board

Executive Director

THIS CERTIFICATE IS PRESENTED TO

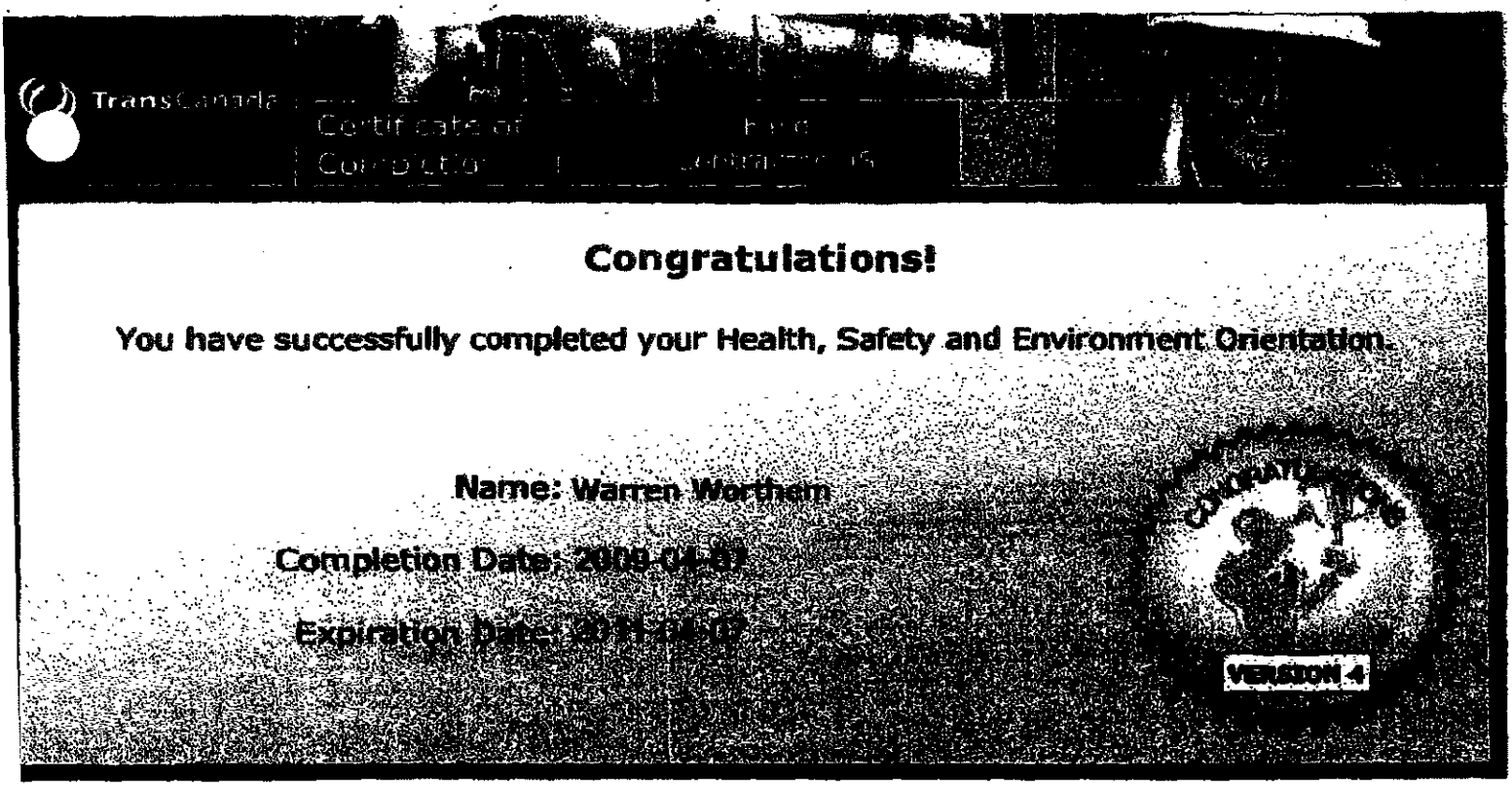
Warren Worthem

FOR SUCCESSFUL COMPLETION OF

8-HOUR REFRESHER TRAINING PER 29 CFR 1910.120(P) & (Q) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER)

ON FEBRUARY 16, 2009.

Catherine Gibbons, CHMM
Environmental Professional


TransCanada
Certificate of
Congratulations!
You have successfully completed your Health, Safety and Environment Orientation.
Name: Warren Worthem
Completion Date: 2009-04-29
Expiration Date: 2014-04-29
VERSION 4

Enviroair Consultants, Inc.

Certificate of Completion

Presented To

Warren Worthem

For Successfully Completing

CONFINED SPACE ENTRANT, ATTENDANT, & ENTRY SUPERVISOR TRAINING

Enviroair is a member of

On this 17th day of May 2006

Brad A. Fashbaugh

The Argus Group
Registered ISO 9002

Brad A. Fashbaugh, Instructor

API WorkSafe

Safety Key

Name: Warren Wortham

Company: HM Environmental Services, Inc.

Completed: 09-Dec-08 02:34 PM

Expires: 09-Dec-09

Key #: 93900576

I acknowledge that I have successfully completed the API WorkSafe training

Signature: Warren C. Wortham

Date: 12/9/08

POLAR
ENVIRONMENTAL SERVICE CORPORATION

TECHNICAL DATA SHEET

C-112 Cleaner - Degreaser

Formulated to dissolve and emulsify heavy grease, oils, tire marks, ink and animal fats. This product's moderate sudsing makes it suitable for use in automatic floor scrubbers, mop buckets and pressure washing applications.

DILUTIONS: 2-4 ounces (1-24) per gallon for light cleaning.
8-10 ounces (1-10) per gallon for medium cleaning.
26 ounces (1-5) per gallon for heavy cleaning.

USES:

- Floors
- Factories
- Construction Equipment
- Restaurants
- Engine degreasing
- Kitchens
- Machinery
- Pressure washing

BENEFITS:

- Versatile – This product is designed for heavy duty cleaning.
- Fast penetration and breakdown of oils and greases.
- An effective blend of surfactants, wetting agents and water-based solvents provide excellent cleaning.

PROPERTIES:

Detergency:	Excellent	Flash point:	None
Emulsification:	Excellent	Foaming:	Moderate
PH:	13.0	Wetting:	Excellent
Rinsability:	Very good	Solubility in water:	Complete

SAFETY:

Keep out of reach of children. For institutional and commercial use. WARNING: Contains Sodium Hydroxide and 2-Butoxyethanol. Avoid contact with skin and eyes. Wear anti-splash goggles and suitable gloves and boots. Harmful if swallowed. FIRST AID: If splashed in eyes or on skin, flush with large quantities of water. If swallowed, do not induce vomiting. Seek medical attention. If inhaled, seek fresh air.

MATERIAL SAFETY DATA SHEET

POLAR CLEAN 112

Revision Date: 08/05/05
Supercedes: 02/06/99

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name: POLAR CLEAN 112, **Chemical Name**: Proprietary Blend, **Chemical Family**: Mixture, Cleaning Compound,
Formula: Not Applicable, Mixture, **CAS Registry Number**: Not Applicable, Mixture.

Manufactured by: Polar, Inc, 2297 N. Moraine Dr., Dayton, OH 45439

Telephone Numbers: Transportation Emergency: Chem-Tel, (800) 255-3924, Product Information: (937)297-0911

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS#	% by Wt	Hazardous*
Sodium Hydroxide	1310-73-2	<5	Yes
2-Butoxyethanol	111-76-2	<5	Yes

* By OSHA definition, 29 CFR 1910.1200 (See Section 3 for Hazard Identification and Section 8 for Exposure Guidelines)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Corrosive Liquid. May severely burn eyes and skin. Harmful if swallowed

Routes of Exposure: Contact, ingestion, **Target Organ Effects: Eyes**: May cause burns and irreversible damage. **Skin**: May cause burns. **Ingestion**: May cause burns to the gastro intestinal tract. Inhalation: **Inhalation** of mist may cause burns in the respiratory tract. **Carcinogenicity**: Not a carcinogen.

4. FIRST AID MEASURES

Eyes: Flush with clean cool water for 15 minutes. See a physician. **Skin**: Wash with soap and water. See a physician if irritation occurs. Remove and wash contaminated clothing. **Ingestion**: Drink plenty of milk. Do not induce vomiting. Seek medical attention. **Inhalation**: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: Water solution. Combustion may occur on water evaporation. **Hazardous Combustion Products**: Oxides of carbon. **General Hazards**: Corrosive liquid. Closed containers may burst when exposed to extreme heat due to build-up of steam pressure. **Extinguishing Media**: Appropriate to primary source of fire. **Fire Fighting Instructions:** Normal firefighting procedures apply. Self contained breathing apparatus should be worn. Use water to cool containers. **Other Information**: Flash Points: Not Applicable, Autolgnition Temperature: Not Applicable, Flammability Limits in Air (% by volume): Not Applicable.

6. ACCIDENTAL RELEASE (SPILL MEASURES)

Spill: Large spills: Dam area to prevent spill from spreading. Can be neutralized with acids. Collect for disposal. Small spills: Flush liquid to sewer with copious amounts of water.

7. HANDLING AND STORAGE

Handling: Impermeable gloves and eye protection required. Body protective clothing and shoes recommended,
Storage: Keep container closed. Keep from freezing.

MATERIAL SAFETY DATA SHEET, POLAR CLEAN 112

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Local exhaust preferred, **Eye Protection:** Chemical goggles, **Skin Protection:** Neoprene or natural rubber gloves, **Respiratory Protection:** Use only NIOSH/MSHA approved respiratory protection, **Other Protective Equipment:** As required to minimize skin contact. Eye wash, safety shower, **Exposure Guidelines:** 2-Butoxyethanol TWA (skin) 25ppm. OSHA and ACGIH. Sodium Hydroxide TWA 2 mg/m3.

9. PHYSICAL AND CHEMICAL PROPERTIES (Typical)

Boiling Point: >200 F, **Appearance and Odor:** Clear, mild odor, **Specific Gravity:** 1.04, **Solubility in H2O:** Complete, **PH (as is):** 12.9.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable, **Conditions to avoid:** Strong Acids, **Hazardous Decomposition Products:** By fire: oxides of carbon. **Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology of this product has not been established.

12. ECOLOGICAL INFORMATION

Environmental effects of this product have not been established.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations. Container disposal, offer for recycling or triple rinse and dispose of in an approved landfill.

14. TRANSPORT INFORMATION

DOT Description: Compounds, Cleaning Liquid, 8. UN1760, PGII (Contains Sodium Hydroxide).

15. REGULATORY INFORMATION

All components are listed on the TSCA Inventory. 2-Butoxyethanol is subject to the reporting requirements of SARA Title III, Sect. 313.

16. OTHER INFORMATION

Hazard Rating:

HMIS:
Health – 2
Flammability – 0
Reactivity – 0
Protective Equipment: C

NFPA:
Health – 2
Flammability – 0
Reactivity – 0

Appendix E

ENVIRONMENTAL QUALITY LABORATORIES, INC
44075 Phoenix Drive
Sterling Heights, Michigan 48314-1420
(586) 731-1818 • (800) 368-5227 • Fax (586) 731-2590

N° 10720

Chain of Custody
Analysis Request

1
Consultant: HM Environmental
Sampler: Rob Phone:
Project: Mueller Ind
2199 Lapeer Hwy
Port Huron Fax:

2 Sample Identification	Collection Date	Collection Time	Grab	Composite	4 Matrix: Soil	Water	Other	Total # of Containers	5 Analysis Requested: VOC	SVOC	TCLP metals	Remarks (6)
EF 908	12-MAY	11:00			X			2				
EW 909	"	11:10			X			2				
CF 910	"	11:15			X			2				
WF 911	"	11:20			X			2				
WW 912	"	11:25			X			2				
NW 913	"	11:30			X			2				
SW 914	"											

7
Turnaround time requested, (please circle): Emergency, Routine
(Call to confirm Emergency turnaround time).
Rush analysis results via:
Fax#: _____ -or- Phone #: _____

8 - This section MUST be signed each time the sample changes hands! -

Relinquished by	Date	Time	Received by	Date	Time
[redacted]	12-MAY	[redacted]			
Steph Thomas	5-12-09	11:40	[signature]	12-MAY	11:50
[signature]	12-MAY	14:00	[signature]		

9
CONDITION OF SAMPLES UPON RECEIPT AT EQL
Sample Temp: _____ Preserve? _____ Damaged? _____
Comments: _____

In case we have questions when the samples arrive, call:
Name: _____ Phone: _____
Send report to: _____

ENVIRONMENTAL QUALITY LABORATORIES, INC.
44075 Phoenix Dr.
Sterling Heights, MI 48314
Phone 586.731.1818 Fax 586.731.2590
Outside Michigan 1.800.368.5227
www.environmentalqualitylabs.com

CLIENT NAME: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

PROJECT NAME/NO.: MUELLER INDUSTRIES

DATE RECEIVED	SAMPLE TEMP	DATE TCLP EXTRACTED	DATE ANALYZED	DATE REPORTED
05/12/09	4°C	05/13/09	05/15/09	05/20/09

EXTRACTION FLUID 1
ANALYZED BY: JL **METALS REFERENCED METHOD:** 6000/7000/1311 ALL SOIL RESULTS REPORTED IN ppMillion
DRY WEIGHT CORRECTED (SOILS ONLY)

LAB NO.		RDL TCLP	908 SOIL EF	909 SOIL EW	910 SOIL CF	911 SOIL WF	912 SOIL WW	913 SOIL NW	914 SOIL SW
COMPOUND	NAME	ppM							
ARSENIC	6010	0.005	ND	ND	ND	ND	ND	ND	ND
BARIUM	6010	0.100	0.439	0.594	0.470	0.370	0.403	0.480	0.447
CADMIUM	6010	0.001	ND	ND	ND	ND	ND	ND	ND
CHROMIUM TOTAL	6010	0.005	ND	ND	ND	ND	ND	ND	ND
COPPER	6010	0.004	ND	0.021	ND	0.007	0.165	ND	ND
LEAD	6010	0.003	ND	ND	ND	ND	ND	ND	ND
SILVER	6010	0.0002	ND	ND	ND	ND	ND	ND	ND
ZINC	6010	0.050	ND	ND	ND	ND	5.41	ND	ND
SELENIUM	6010	0.005	ND	ND	ND	ND	ND	ND	ND
MERCURY	7470	0.0002	ND	ND	ND	ND	ND	ND	ND

THOMAS S. MEGNA, PRESIDENT Thomas S Megna ALA GAJDA, LAB SUPERVISOR Alla Gajda

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.
REFERENCES: 40 CFR PART 136. CURRENT EDITION. las rev 020105

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 908

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE EF
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alicja Gajda

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SAMPLE NO. 908

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE EF

DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
DATE EXTRACTED: 05/13/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

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SAMPLE NO. 908

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE EF
DATE REPORTED: 05/20/09
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ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
35.	2,4-DINITROPHENOL	ND	830 / 25
36.	2,4-DINITROTOLUENE	ND	330 / 5.0
37.	2,6-DINITROTOLUENE	ND	330 / 5.0
38.	DI-N-OCTYL PHTHALATE	ND	330 / 5.0
39.	FLUORANTHENE	ND	330 / 1.0
40.	FLUORENE	ND	330 / 5.0
41.	HEXACHLOROBENZENE	ND	330 / 0.2
42.	HEXACHLOROBUTADIENE	ND	50 / 0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330 / 5.0
44.	HEXACHLOROETHANE	ND	330 / 5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330 / 2.0
46.	ISOPHORONE	ND	330 / 5.0
47.	2-METHYLNAPHTHALENE	ND	330 / 5.0
48.	2-METHYLPHENOL	ND	330 / 10
49.	4-METHYLPHENOL	ND	330 / 10
50.	NAPHTHALENE	ND	330 / 5.0
51.	2-NITROANILINE	ND	830 / 25
52.	3-NITROANILINE	ND	830 / 25
53.	4-NITROANILINE	ND	830 / 25
54.	NITROBENZENE	ND	200 / 3.0
55.	2-NITROPHENOL	ND	330 / 5.0
56.	4-NITROPHENOL	ND	830 / 25
57.	N-NITROSODIPHENYLAMINE	ND	330 / 5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330 / 5.0
59.	PENTACHLOROPHENOL	ND	20 / 1.0
60.	PHENANTHRENE	ND	330 / 2.0
61.	PHENOL	ND	330 / 5.0
62.	PYRENE	ND	330 / 5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330 / 5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330 / 4.0
66.	BENZIDINE	ND	1000 / 0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330 / 5.0
68.	CARBAZOLE	ND	330 / 10.0

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 909

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE EW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SAMPLE TEMP: 4°C
DATE COLLECTED: 05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG

DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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CLIENT: HM ENVIRONMENTAL
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SAMPLE NO. 909

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE EW

DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
DATE EXTRACTED: 05/13/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
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ENVIRONMENTAL QUALITY LABORATORIES, INC.
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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 909

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE EW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
DATE EXTRACTED:05/13/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / RDL	WATER / RDL
35.	2,4-DINITROPHENOL	ND	830	25
36.	2,4-DINITROTOLUENE	ND	330	5.0
37.	2,6-DINITROTOLUENE	ND	330	5.0
38.	DI-N-OCTYL PHTHALATE	ND	330	5.0
39.	FLUORANTHENE	ND	330	1.0
40.	FLUORENE	ND	330	5.0
41.	HEXACHLOROBENZENE	ND	330	0.2
42.	HEXACHLOROBUTADIENE	ND	50	0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330	5.0
44.	HEXACHLOROETHANE	ND	330	5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330	2.0
46.	ISOPHORONE	ND	330	5.0
47.	2-METHYLNAPHTHALENE	ND	330	5.0
48.	2-METHYLPHENOL	ND	330	10
49.	4-METHYLPHENOL	ND	330	10
50.	NAPHTHALENE	ND	330	5.0
51.	2-NITROANILINE	ND	830	25
52.	3-NITROANILINE	ND	830	25
53.	4-NITROANILINE	ND	830	25
54.	NITROBENZENE	ND	200	3.0
55.	2-NITROPHENOL	ND	330	5.0
56.	4-NITROPHENOL	ND	830	25
57.	N-NITROSODIPHENYLAMINE	ND	330	5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330	5.0
59.	PENTACHLOROPHENOL	ND	20	1.0
60.	PHENANTHRENE	ND	330	2.0
61.	PHENOL	ND	330	5.0
62.	PYRENE	ND	330	5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330	5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330	5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330	4.0
66.	BENZIDINE	ND	1000	0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330	5.0
68.	CARBAZOLE	ND	330	10.0

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 910

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE CF
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SAMPLE NO. 910

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SOILS SAMPLE CF

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DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 910

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE CF

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DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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MT. CLEMENS, MI 48043

SAMPLE NO. 910

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DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / RDL	WATER / RDL
35.	2,4-DINITROPHENOL	ND	830	25
36.	2,4-DINITROTOLUENE	ND	330	5.0
37.	2,6-DINITROTOLUENE	ND	330	5.0
38.	DI-N-OCTYL PHTHALATE	ND	330	5.0
39.	FLUORANTHENE	ND	330	1.0
40.	FLUORENE	ND	330	5.0
41.	HEXACHLOROBENZENE	ND	330	0.2
42.	HEXACHLOROBUTADIENE	ND	50	0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330	5.0
44.	HEXACHLOROETHANE	ND	330	5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330	2.0
46.	ISOPHORONE	ND	330	5.0
47.	2-METHYLNAPHTHALENE	ND	330	5.0
48.	2-METHYLPHENOL	ND	330	10
49.	4-METHYLPHENOL	ND	330	10
50.	NAPHTHALENE	ND	330	5.0
51.	2-NITROANILINE	ND	830	25
52.	3-NITROANILINE	ND	830	25
53.	4-NITROANILINE	ND	830	25
54.	NITROBENZENE	ND	200	3.0
55.	2-NITROPHENOL	ND	330	5.0
56.	4-NITROPHENOL	ND	830	25
57.	N-NITROSODIPHENYLAMINE	ND	330	5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330	5.0
59.	PENTACHLOROPHENOL	ND	20	1.0
60.	PHENANTHRENE	ND	330	2.0
61.	PHENOL	ND	330	5.0
62.	PYRENE	ND	330	5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330	5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330	5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330	4.0
66.	BENZIDINE	ND	1000	0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330	5.0
68.	CARBAZOLE	ND	330	10.0

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 911

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WF
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SAMPLE NO. 911

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WF

DATE REPORTED: 05/20/09
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ANALYZED BY: AG

DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
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SAMPLE NO. 911

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WF

DATE REPORTED: 05/20/09
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DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alla Gajda

ENVIRONMENTAL QUALITY LABORATORIES, INC.
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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 911

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WF
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
DATE EXTRACTED:05/13/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
35.	2,4-DINITROPHENOL	ND	830 / 25
36.	2,4-DINITROTOLUENE	ND	330 / 5.0
37.	2,6-DINITROTOLUENE	ND	330 / 5.0
38.	DI-N-OCTYL PHTHALATE	ND	330 / 5.0
39.	FLUORANTHENE	ND	330 / 1.0
40.	FLUORENE	ND	330 / 5.0
41.	HEXACHLOROBENZENE	ND	330 / 0.2
42.	HEXACHLOROBUTADIENE	ND	50 / 0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330 / 5.0
44.	HEXACHLOROETHANE	ND	330 / 5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330 / 2.0
46.	ISOPHORONE	ND	330 / 5.0
47.	2-METHYLNAPHTHALENE	ND	330 / 5.0
48.	2-METHYLPHENOL	ND	330 / 10
49.	4-METHYLPHENOL	ND	330 / 10
50.	NAPHTHALENE	ND	330 / 5.0
51.	2-NITROANILINE	ND	830 / 25
52.	3-NITROANILINE	ND	830 / 25
53.	4-NITROANILINE	ND	830 / 25
54.	NITROBENZENE	ND	200 / 3.0
55.	2-NITROPHENOL	ND	330 / 5.0
56.	4-NITROPHENOL	ND	830 / 25
57.	N-NITROSODIPHENYLAMINE	ND	330 / 5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330 / 5.0
59.	PENTACHLOROPHENOL	ND	20 / 1.0
60.	PHENANTHRENE	ND	330 / 2.0
61.	PHENOL	ND	330 / 5.0
62.	PYRENE	ND	330 / 5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330 / 5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330 / 4.0
66.	BENZIDINE	ND	1000 / 0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330 / 5.0
68.	CARBAZOLE	ND	330 / 10.0

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ALA GAJDA, LAB SUPERVISOR Alla Gajda

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 912

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED: 05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SAMPLE NO. 912

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WW

DATE REPORTED: 05/20/09
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DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 912

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOILS SAMPLE WW

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ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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MT. CLEMENS, MI 48043

SAMPLE NO. 912

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SOILS SAMPLE WW
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DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
35.	2,4-DINITROPHENOL	ND	830 / 25
36.	2,4-DINITROTOLUENE	ND	330 / 5.0
37.	2,6-DINITROTOLUENE	ND	330 / 5.0
38.	DI-N-OCTYL PHTHALATE	ND	330 / 5.0
39.	FLUORANTHENE	ND	330 / 1.0
40.	FLUORENE	ND	330 / 5.0
41.	HEXACHLOROBENZENE	ND	330 / 0.2
42.	HEXACHLOROBUTADIENE	ND	50 / 0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330 / 5.0
44.	HEXACHLOROETHANE	ND	330 / 5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330 / 2.0
46.	ISOPHORONE	ND	330 / 5.0
47.	2-METHYLNAPHTHALENE	ND	330 / 5.0
48.	2-METHYLPHENOL	ND	330 / 10
49.	4-METHYLPHENOL	ND	330 / 10
50.	NAPHTHALENE	ND	330 / 5.0
51.	2-NITROANILINE	ND	830 / 25
52.	3-NITROANILINE	ND	830 / 25
53.	4-NITROANILINE	ND	830 / 25
54.	NITROBENZENE	ND	200 / 3.0
55.	2-NITROPHENOL	ND	330 / 5.0
56.	4-NITROPHENOL	ND	830 / 25
57.	N-NITROSODIPHENYLAMINE	ND	330 / 5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330 / 5.0
59.	PENTACHLOROPHENOL	ND	20 / 1.0
60.	PHENANTHRENE	ND	330 / 2.0
61.	PHENOL	ND	330 / 5.0
62.	PYRENE	ND	330 / 5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330 / 5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330 / 4.0
66.	BENZIDINE	ND	1000 / 0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330 / 5.0
68.	CARBAZOLE	ND	330 / 10.0

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ALA GAJDA, LAB SUPERVISOR Alicia Gajda

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CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 913

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE NW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SAMPLE NO. 913

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE NW

DATE REPORTED: 05/20/09
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DATE ANALYZED: 05/13/09
ANALYZED BY: AG

DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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ALA GAJDA, LAB SUPERVISOR Alicja Gajda

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SAMPLE NO. 913

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE NW

DATE REPORTED: 05/20/09
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ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Ala Gajda

ENVIRONMENTAL QUALITY LABORATORIES, INC.
44075 Phoenix Drive
Sterling Heights, Michigan 48314-1420
Phone 586.731.1818 Fax 586.731.2590
Outside Michigan 1.800.368.5227
www.environmentalqualitylabs.com

CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 913

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE NW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
DATE EXTRACTED: 05/13/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
35.	2,4-DINITROPHENOL	ND	830 / 25
36.	2,4-DINITROTOLUENE	ND	330 / 5.0
37.	2,6-DINITROTOLUENE	ND	330 / 5.0
38.	DI-N-OCTYL PHTHALATE	ND	330 / 5.0
39.	FLUORANTHENE	ND	330 / 1.0
40.	FLUORENE	ND	330 / 5.0
41.	HEXACHLOROBENZENE	ND	330 / 0.2
42.	HEXACHLOROBUTADIENE	ND	50 / 0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330 / 5.0
44.	HEXACHLOROETHANE	ND	330 / 5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330 / 2.0
46.	ISOPHORONE	ND	330 / 5.0
47.	2-METHYLNAPHTHALENE	ND	330 / 5.0
48.	2-METHYLPHENOL	ND	330 / 10
49.	4-METHYLPHENOL	ND	330 / 10
50.	NAPHTHALENE	ND	330 / 5.0
51.	2-NITROANILINE	ND	830 / 25
52.	3-NITROANILINE	ND	830 / 25
53.	4-NITROANILINE	ND	830 / 25
54.	NITROBENZENE	ND	200 / 3.0
55.	2-NITROPHENOL	ND	330 / 5.0
56.	4-NITROPHENOL	ND	830 / 25
57.	N-NITROSODIPHENYLAMINE	ND	330 / 5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330 / 5.0
59.	PENTACHLOROPHENOL	ND	20 / 1.0
60.	PHENANTHRENE	ND	330 / 2.0
61.	PHENOL	ND	330 / 5.0
62.	PYRENE	ND	330 / 5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330 / 5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330 / 4.0
66.	BENZIDINE	ND	1000 / 0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330 / 5.0
68.	CARBAZOLE	ND	330 / 10.0

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alla Gajda

las
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Outside Michigan 1.800.368.5227
www.environmentalqualitylabs.com

CLIENT: HM ENVIRONMENTAL
42826 NORTH WALNUT
MT. CLEMENS, MI 48043

SAMPLE NO. 914

SAMPLE DESCRIPTION: MUELLER INDUSTRIES
SOIL SAMPLE SW
DATE REPORTED: 05/20/09
DATE RECEIVED: 05/12/09
SAMPLE TEMP: 4°C
DATE COLLECTED:05/12/09
DATE ANALYZED: 05/13/09
ANALYZED BY: AG
DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULT (ppB)	SOIL / WATER RDL / RDL
BENZENE	ND	50 / 1.0
BROMOBENZENE	ND	100 / 1.0
BROMOCHLOROMETHANE	ND	100 / 1.0
BROMODICHLOROMETHANE	ND	100 / 1.0
BROMOFORM	ND	100 / 1.0
BROMOMETHANE	ND	200 / 5.0
n-BUTYLBENZENE	ND	50 / 1.0
sec-BUTYLBENZENE	ND	50 / 1.0
tert-BUTYLBENZENE	ND	50 / 1.0
CARBON TETRACHLORIDE	ND	50 / 1.0
CHLOROBENZENE	ND	50 / 1.0
CHLOROETHANE	ND	250 / 5.0
CHLOROMETHANE	ND	250 / 5.0
CHLOROFORM	ND	50 / 1.0
2-CHLOROTOLUENE	ND	50 / 5.0
4-CHLOROTOLUENE	ND	50 / 5.0
DIBROMOCHLOROMETHANE	ND	100 / 5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	10 / 0.2
1,2-DIBROMOETHANE	ND	20 /0.05
DIBROMOMETHANE	ND	250 / 5.0
1,2-DICHLOROBENZENE	ND	100 / 1.0
1,3-DICHLOROBENZENE	ND	100 / 1.0
1,4-DICHLOROBENZENE	ND	100 / 1.0
DICHLORODIFLUOROMETHANE	ND	250 / 5.0
1,1-DICHLOROETHANE	ND	50 / 1.0
1,2-DICHLOROETHANE	ND	50 / 1.0
1,1-DICHLOROETHENE	ND	50 / 1.0
cis-1,2-DICHLOROETHENE	ND	50 / 1.0
trans-1,2-DICHLOROETHENE	ND	50 / 1.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alagda

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ANALYZED BY: AG

DRY WEIGHT CORRECTED (SOILS ONLY)

COMPOUND NAME	8260 SCAN RESULTS (ppB)	SOIL / WATER RDL / RDL
1,2-DICHLOROPROPANE	ND	50 / 1.0
1,3-DICHLOROPROPANE	ND	50 / 1.0
2,2-DICHLOROPROPANE	ND	50 / 1.0
1,1-DICHLOROPROPENE	ND	50 / 1.0
cis-1,3-DICHLOROPROPENE	ND	50 / 1.0
trans-1,3-DICHLOROPROPENE	ND	50 / 1.0
ETHYLBENZENE	ND	50 / 1.0
ISOPROPYLBENZENE	ND	250 / 5.0
METHYLENE CHLORIDE	ND	100 / 5.0
NAPHTHALENE	ND	330 / 5.0
n-PROPYLBENZENE	ND	100 / 1.0
STYRENE	ND	50 / 1.0
1,1,1,2-TETRACHLOROETHANE	ND	100 / 1.0
1,1,2,2-TETRACHLOROETHANE	ND	50 / 1.0
TETRACHLOROETHYLENE	ND	50 / 1.0
TOLUENE	ND	100 / 1.0
1,2,3-TRICHLOROBENZENE	ND	330 / 5.0
1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
1,1,1-TRICHLOROETHANE	ND	50 / 1.0
1,1,2-TRICHLOROETHANE	ND	50 / 1.0
TRICHLOROETHYLENE	ND	50 / 1.0
TRICHLOROFLUOROMETHANE	ND	100 / 1.0
1,2,3-TRICHLOROPROPANE	ND	100 / 1.0
1,2,4-TRIMETHYLBENZENE	ND	100 / 1.0
1,3,5-TRIMETHYLBENZENE	ND	100 / 1.0
VINYL CHLORIDE	ND	40 / 1.0
XYLENES TOTAL	ND	150 / 3.0
2-METHYLNAPHTHALENE	ND	330 / 5.0

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alicje Gajda

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SOIL SAMPLE SW

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DRY WEIGHT CORRECTED SOILS ONLY

SEMIVOLATILE ORGANICS
8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
1.	ACENAPHTHENE	ND	330 / 5.0
2.	ACENAPHTHYLENE	ND	330 / 5.0
3.	ANTHRACENE	ND	330 / 5.0
4.	BENZOIC ACID	ND	3300 / 50
5.	BENZO(A)ANTHRACENE	ND	330 / 1.0
6.	BENZO(B)FLUORANTHENE	ND	330 / 1.0
7.	BENZO(K)FLUORANTHENE	ND	330 / 1.0
8.	BENZO(G,H,I)PERYLENE	ND	330 / 1.0
9.	BENZO(A)PYRENE	ND	330 / 1.0
10.	BENZYL ALCOHOL	ND	3300 / 50
11.	BIS(2-CHLOROETHOXY)METHANE	ND	330 / 5.0
12.	BIS(2-CHLOROETHYL)ETHER	ND	100 / 1.0
13.	BIS(2-CHLOROISOPROPYL)ETHER	ND	330 / 5.0
14.	BIS(2-ETHYLHEXYL)PHTHALATE	ND	330 / 5.0
15.	4-BROMOPHENYL PHENYL ETHER	ND	330 / 5.0
16.	BUTYL BENZYL PHTHALATE	ND	330 / 5.0
17.	4-CHLOROANILINE	ND	330 / 10
18.	4-CHLORO-3-METHYLPHENOL	ND	330 / 5.0
19.	2-CHLORONAPHTHALENE	ND	330 / 5.0
20.	2-CHLOROPHENOL	ND	330 / 10
21.	4-CHLOROPHENYL PHENYL ETHER	ND	330 / 5.0
22.	CHRYSENE	ND	330 / 1.0
23.	DIBENZO(A,H)ANTHRACENE	ND	330 / 2.0
24.	DIBENZOFURAN	ND	330 / 4.0
25.	DI-N-BUTYLPHTHALATE	ND	330 / 5.0
26.	1,2-DICHLOROBENZENE	ND	330 / 5.0
27.	1,3-DICHLOROBENZENE	ND	330 / 5.0
28.	1,4-DICHLOROBENZENE	ND	330 / 5.0
29.	3,3'-DICHLOROBENZIDINE	ND	2000 / 0.3
30.	2,4,-DICHLOROPHENOL	ND	330 / 10
31.	DIETHYL PHTHALATE	ND	330 / 5.0
32.	2,4-DIMETHYLPHENOL	ND	330 / 5.0
33.	DIMETHYL PHTHALATE	ND	330 / 5.0
34.	4,6-DINITRO-2-METHYLPHENOL	ND	830 / 20

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

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SEMIVOLATILE ORGANICS

8270 SCAN

NO.	COMPOUND NAME	RESULT (ppB)	SOIL / WATER RDL / RDL
35.	2,4-DINITROPHENOL	ND	830 / 25
36.	2,4-DINITROTOLUENE	ND	330 / 5.0
37.	2,6-DINITROTOLUENE	ND	330 / 5.0
38.	DI-N-OCTYL PHTHALATE	ND	330 / 5.0
39.	FLUORANTHENE	ND	330 / 1.0
40.	FLUORENE	ND	330 / 5.0
41.	HEXACHLOROBENZENE	ND	330 / 0.2
42.	HEXACHLOROBUTADIENE	ND	50 / 0.2
43.	HEXACHLOROCYCLOPENTADIENE	ND	330 / 5.0
44.	HEXACHLOROETHANE	ND	330 / 5.0
45.	INDENO(1,2,3-CD)PYRENE	ND	330 / 2.0
46.	ISOPHORONE	ND	330 / 5.0
47.	2-METHYLNAPHTHALENE	ND	330 / 5.0
48.	2-METHYLPHENOL	ND	330 / 10
49.	4-METHYLPHENOL	ND	330 / 10
50.	NAPHTHALENE	ND	330 / 5.0
51.	2-NITROANILINE	ND	830 / 25
52.	3-NITROANILINE	ND	830 / 25
53.	4-NITROANILINE	ND	830 / 25
54.	NITROBENZENE	ND	200 / 3.0
55.	2-NITROPHENOL	ND	330 / 5.0
56.	4-NITROPHENOL	ND	830 / 25
57.	N-NITROSODIPHENYLAMINE	ND	330 / 5.0
58.	N-NITROSODI-N-PROPYLAMINE	ND	330 / 5.0
59.	PENTACHLOROPHENOL	ND	20 / 1.0
60.	PHENANTHRENE	ND	330 / 2.0
61.	PHENOL	ND	330 / 5.0
62.	PYRENE	ND	330 / 5.0
63.	1,2,4-TRICHLOROBENZENE	ND	330 / 5.0
64.	2,4,5-TRICHLOROPHENOL	ND	330 / 5.0
65.	2,4,6-TRICHLOROPHENOL	ND	330 / 4.0
66.	BENZIDINE	ND	1000 / 0.3
67.	1,2-DIPHENYLHYDRAZINE	ND	330 / 5.0
68.	CARBAZOLE	ND	330 / 10.0

THOMAS S. MEGNA, PRESIDENT Thomas S Megna
ALA GAJDA, LAB SUPERVISOR Alla Gajda

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44075 Phoenix Dr.
Sterling Heights, MI 48314
Phone 586.731.1818 Fax 586.731.2590
Outside Michigan 1.800.368.5227
www.environmentalqualitylabs.com

CLIENT: HM ENVIRONMENTAL
PROJECT NAME AND NUMBER: MUELLER INDUSTRIES

DATE RECEIVED: 05/12/09
LAB NO.'S IN BATCH: 908-921
MATRIX: SOIL

METHOD 8260 UNITS = ppB

	CONC. OF SPIKE	MATRIX SPIKE	MATRIX SPIKE DUP	% RECOV	% RPD	SAMPLE RECEIVING SPIKE	DATE ANALYZED	TRIP/ METHOD BLANK	ANALYSTS INITIALS	% RECOV CONTROL LIMITS
1,1-DC-ETHENE	50	54	56	110	3.6	908	5/13/2009	<RDL	AG	48-135
TRICHLOROETHENE	50	55	58	113	5.3	908	5/13/2009	<RDL	AG	82-120
CHLOROBENZENE	50	55	59	114	7	908	5/13/2009	<RDL	AG	86-123
BENZENE	50	57	57	114	0	908	5/13/2009	<RDL	AG	86-122
TOLUENE	50	56	56	112	0	908	5/13/2009	<RDL	AG	86-124

THOMAS S. MEGNA, PRESIDENT Thomas S Megna

ALA GAJDA, LAB SUPERVISOR Ala Gajda

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44075 Phoenix Drive
Sterling Heights, Michigan 48314-1420
(586) 731-1818 • (800) 368-5227 • Fax (586) 731-2590

№ 10720

Chain of Custody
Analysis Request

1 Consultant: H M ENVIRONMENTAL
Sampler: Rob   Phone:
Project: Mueller Ind
2199 LAPEER AVE
PORT HURON   Fax:

2 **4** Matrix **5** Analysis Requested

Sample Identification		Collection Date	Collection Time	Grab	Composite	Soil	Water	Other	Total # of Containers	VOC	SVOC	TCLP metals						Remarks **6**
EF	908	12 MAY	11:00			X			2									
EW	909		11:10			X			2									
CF	910		11:15			X			2									
WF	911		11:20			X			2									
WW	912		11:25			X			2									
NW	913		11:30			X			2									
SW	914																	

7
Turnaround time requested, (please circle): Emergency, Routine
(Call to confirm Emergency turnaround time).
Rush analysis results via:
Fax#: -or- Phone #:

8 - This section MUST be signed each time the sample changes hands! -

Relinquished by	Date	Time	Received by	Date	Time
~~[signature]~~	~~12 MAY~~	~~1145~~			
[signature]	5-12-09	11:50	[signature]	12 MAY	11:50
[signature]	12 MAY	14:00	[signature]		

In case we have questions when the samples arrive, call:
Name: Phone:
Send report to:

9
CONDITION OF SAMPLES UPON RECEIPT AT EQL
Sample Temp: Preserve? Damaged?
Comments:

Appendix F

Pedler, Kevin

From: Day, Jim (DEQ) [DAYJ@michigan.gov]
Sent: Thursday, June 18, 2009 9:53 AM
To: Pedler, Kevin
Cc: Conforti, Rich (DEQ); AuBuchon, Lawrence (DEQ); Beedle.Michael@epamail.epa.gov
Subject: Mueller Brass Closure Plan Activities

Mr. Pedler,

Based on the information you have recently provided, and my 5/29/2009 site visit observations, no problems here with your finaling closure activities/documents associated with the former Steam Cleaner Tank System, per the provisions of the Consent Agreement. ***Please note the following*:**

Section IV, Consent Agreement, 77. RCRA Compliance and Closure, C. calls out that "Respondent shall notify U.S. EPA in writing 30 calendar days after Respondent completes closure of the Steam Cleaner Tank System under the closure plan."

Inasmuch as you are seeking approval from this office to complete closure activities associated with the Steam Cleaner Tank System, this note would constitute said approval.

Questions, contact me.

James A. Day
Environmental Quality Analyst
Michigan Department of Environmental Quality
Waste and Hazardous Materials Division
27700 Donald Court
Warren, Michigan 48092
Phone: 586-753-3835
Fax: 586-753-3831
DayJ@michigan.gov

From: Pedler, Kevin [mailto:kpedler@MuellerIndustries.com]
Sent: Wednesday, June 10, 2009 11:40 AM
To: Day, Jim (DEQ)
Subject: RE: Mueller Brass Closure Plan Activities_Site Review Update

Thank you, Jim.

Kevin Pedler
Mueller Brass Company
EHS Coordinator
810-434-2713
fax: 810-989-4028

NTH Consultants, Ltd.
Infrastructure Engineering
and Environmental Services

608 S. Washington Avenue
Lansing, MI 48933
517.484.6900
517.485.8323 Fax

Larry AuBuchon
Hazardous Waste/Storage Tank Program Supervisor
Waste & Hazardous Materials Division
Michigan Dept. of Environmental Quality
27700 Donald Court
Warren, MI 48092

March 12, 2009- Revision 1
Proj. No. 73-080913

Subject: Proposed Closure Plan for the former steam-cleaning storage tank system
Mueller Industries, Inc.
Port Huron, Michigan

Dear Mr. AuBuchon:

NTH Consultants, Ltd. (NTH) is submitting this revised version of a proposed closure plan on behalf of our client Mueller Industries, Inc. (Mueller) for the closure of a former steam-cleaning storage tank and sump area located in Port Huron, Michigan. This proposed closure plan is being submitted consistent with an order / agreement with the US Environmental Protection Agency (US EPA) that has an effective date of September 30, 2008. The order specified that the tank closure be conducted in a manner acceptable to the Michigan Department of Environmental Quality (MDEQ). Therefore, we have developed and are submitting this proposed closure plan / work plan for your review and comment.

The closure of Mueller's former steam-cleaning storage tank area and sump will be completed consistent with the requirements of 40 CFR §265 subpart G, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, specifically §265.111 and §265.114, along with applicable requirements for closures of tank systems as specified in §265.197.

The tank itself was removed on April 1, 2006. The attached work plan / scope of work outlines the activities to be conducted by Mueller to address the remaining elements of the former steam-cleaning storage tank area and sump.

We look forward to working with you as we obtain the necessary information and complete activities to address closure of the former steam-cleaning storage tank area and sump. If you have questions or need additional information please contact either Brad Venman at 517-484-6900, or Kevin Pedler, of Mueller Industries, at 810-987-7770.

Sincerely,

NTH Consultants, Ltd.

Bradley C. Venman
Sr. Vice President

BCV/mjb
Attachment

cc: Barry Munce, Mueller
Kevin Pedler, Mueller
Mark Jacobs, Dykema

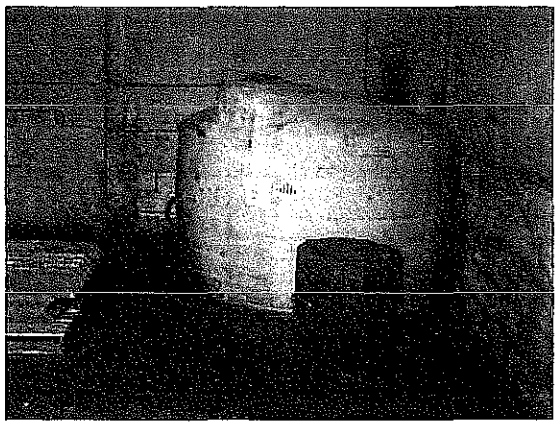
PROPOSED CLOSURE PLAN / WORK PLAN
FORMER STEAM-CLEANING AREA, STORAGE TANK AND SUMP

BACKGROUND

The former steam-cleaning area and storage tank system consisted of an approximate 1,200 gallon plastic tank on top of a grate-covered concrete diked area and sump. The tank was cleaned and removed from service and all residual liquids were removed from the sump on April 1, 2006. The approximate dimensions of the diked area are 7 ft. by 12 ft.; the concrete sump under a portion of this area is approximately 4 ft. by 6 ft. by 3 ft. deep.

Pieces of equipment were brought to the steam-cleaning room by maintenance personnel, steam cleaned on top of the grate, and the equipment was allowed to dry. Wastewater from the steam cleaning operations drained to the sump and maintenance personnel pumped the collected wash-water from the sump into the plastic tank. The wastewater was periodically removed and disposed off-site as hazardous waste based on waste characterization data indicating the wastewater exhibited characteristics of hazardous waste for lead and sometimes for cadmium.

The following pictures depicting the steam-cleaning room were taken by the US EPA at the time of their inspection of the site in the spring of 2006.



Picture taken 3-31-06; the plastic storage tank was located above the sump in the steam cleaning room.

Picture taken 4-1-06; the plastic storage tank had been cleaned and removed from service by Mueller.

SCOPE OF WORK

Mueller intends to address the closure of the former steam cleaning tank system as follows:

- Clean and/or decontaminate the steam-cleaning room equipment, grating, pavement surfaces, and surfaces of the concrete sump;
- Characterize, remove, and properly dispose of cleaning residuals from the steam-cleaning room and concrete sump;
- Inspect the cleaned surfaces of the former steam-cleaning pad and concrete sump for cracks or potential damage;
- Investigate the soils beneath and in the immediate vicinity of the steam cleaning pad and concrete sump. Potential sampling locations will be determined based upon the results of the inspection of the decontaminated surfaces. Cracked areas will be targeted for the investigation. It is anticipated that it may not be possible to remove the concrete sump due to its proximity and/or integration with portions of the building's walls. Although the concrete may not be able to be removed, Mueller proposes to core through the concrete/pavement in the former steam-cleaning room to access soils beneath and adjacent to the concrete pad and sump area. Consistent with guidance contained in Chapter 1, section 1.3.1 of the MDEQ's "Sampling Strategies and Statistics Training materials for Part 201 Cleanup Criteria" (S3TM), Mueller intends to collect 3 "floor" soil samples and 4 samples representing "side-wall" soil samples in the vicinity of the concrete sump. Fieldwork and environmental sampling will be conducted consistent with NTH's standard operating procedures referenced in Attachment 1 to this work plan.

  Collected soil samples will be analyzed for the following parameters:

  - Volatile organic chemicals using SW-846 method 8260,
  - Semi-volatile organic chemicals using SW-846 method 8270, and
  - RCRA metals.

The analytical results will be compared to cleanup criteria for soils established according to Part 201, Environmental Remediation (Part 201), of Michigan's Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended (Act 451). This comparison will determine whether waste residuals may have been released from the former steam-cleaning tank system. If the comparisons with Part 201 criteria indicate residuals from former steam cleaning operations and

wastewater management do not exceed criteria applicable to the site, the sump area will be filled with clean, compacted material and new pavement will be installed within the former steam-cleaning room.

To the extent that is practical and/or feasible, Mueller intends to remove contaminated materials and/or soils to achieve closure of the former steam-cleaning room and storage tank system. Decontaminated materials that are removed will be properly recycled or disposed.

COST ESTIMATE AND SCHEDULE

Preliminary estimate for conducting surface cleaning and decontamination of former steam-cleaning tank system. (Includes development of a project specific Health and Safety Plan, characterization and disposal of cleanup residuals.)	$ 6,800
Soil sampling beneath and adjacent to former steam-cleaning tank system. (Includes analysis of 3 samples representing "floor" samples and 4 samples representing "side-wall" samples; one duplicate sample; one trip blank for Volatile Organic Chemicals (VOCs); one equipment blank; soil samples to be analyzed for VOCs [Method 8260]; Semi-VOCs [Method 8270], and RCRA metals.)	$ 5,500
Removal of potentially impacted soil, if necessary; confirmatory sampling.	TBD
Completion of summary report documenting closure activities.	$ 4,300

It is anticipated that the surface cleaning, decontamination and soil sampling will be initiated within three weeks of receiving approval of this work plan. It is anticipated that the summary report will be completed within six weeks following receipt of the sampling results from the analytical laboratory that document compliance with applicable Part 201 cleanup criteria.

CLOSURE CERTIFICATION

Mueller Industries, Inc. (Mueller) will conduct the activities in this work plan consistent with requirements outlined in 40 CFR 265.197. Consistent with 40 CFR 265.115, within 60 days of completion of the closure activities for the former steam-cleaning tank system, Mueller will submit a certification, signed by the owner's representative and an independent registered professional engineer that the tank system has been closed in accordance with the specifications

in the approved closure plan. The summary report documenting closure activities will include the following supporting documentation:

- The results of all sampling and analysis.
- Sampling and analysis procedures.
- A map showing the location where samples were obtained.
- Any statistical evaluations of sampling data.
- A summary of waste types and quantities removed from the site and the destination of these wastes.
- If soil has been excavated, the final depth and elevation of the excavation and a description of the fill material used.

ATTACHMENT 1
EXAMPLE STANDARD OPERATING PROCEDURES

SOP: ENVIRONMENTAL SOIL BORINGS

Using Direct Push, Split Spoon, and Hand Augers

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- VOC Field Screening Device (VOCFSD)
- Soil Sampling Equipment – See *NTH SOP: Soil Sample Preparation*
- Disposable gloves – at least 2-pair per probe
- 1-gallon re-sealable plastic bags **OR** 16 oz. glass jars – 1 bag/jar for every 2 feet of probing (plastic bags have the potential to contaminate samples with SVOCs)
- Several Garbage Bags
- Hook-blade knife
- Documentation Supplies (pen, marker, measuring tape or wheel, hand level, *Daily Field Report, Log of Test Boring, Log of Geoprobe or Log of Hand Auger*)

PRELIMINARY ACTIVITIES:

- Notify MISS DIG (1-800-482-7171) at least 72-hours in advance of boring locations to clear utilities.
- Verify schedule 72-hours prior to activities with the contractor and with owner to ensure there are no conflicts. Ensure the contractor will bring a rig capable of traversing the terrain of the site.

EQUIPMENT PREPARATION – BEFORE EACH BORING:

- Calibrate the VOCFSD in accordance with *NTH SOP: Equipment Check/Calibration.*
- Select an area for equipment that is free from any airborne contaminants such as excessive dust or vehicle emissions.
- Spread a garbage bag out in the equipment area to use as a ground cloth.
- Fill out the top portion (project, site personnel, and equipment identification) of the *Log of Test Boring Log of Geoprobe or Log of Hand Auger* Form.

PROBING PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The contractor will probe and retrieve a soil sample in a clear acetate liner. Set the liner on the ground cloth in the equipment area. Use a hook-blade knife to make two cuts lengthwise on the liner, enabling you to remove the top half of the liner.

- Using the *Log of Test Boring or Log of Geoprobe*, identify the material in each liner using the protocol established in the *NTH Memo: Test Boring Inspection.*
- Collect a small sample from each two-foot section and place in a bag/jar. Seal the bag / close the lid label the bag/jar with the boring number and the depth. Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor. If the acetate liners are four-feet long, collect two at least bags/jars per liner. If samples will be collected for laboratory analysis, it is important to leave a section of each soil strata in the liner from which to collect an undisturbed sample and replace the liner to minimize the loss of volatile compounds.
- Homogenize the soil in the bag/jar.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device.* Record the VOCFSD reading on the NTH Form: *Log of Test Boring or Log of Geoprobe* in the same row as the sample number.
- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. If possible, the soil sample shall be prepared from the undisturbed soil remaining in the liner. If there is not enough of the contaminated soil remaining in the liner, prepare the sample from the soil placed in the bag/jar. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, direct the contractor to move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

HOLLOW STEM AUGER PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The contractor will drill and retrieve a soil sample in steel split spoon. Count and record the blow counts for the sample on the *Log of Test Boring.* (Note: The intervals sampled and the amount driven, 18-inches or 24-inches will be project specific) Once the spoon is opened, quickly transfer the sample to at least one bag/jar. The drilling contractor will decontaminate the spoon between samples with water and a mild detergent or with a steam cleaner.
- Using the *Log of Test Boring,* identify the material in each spoon using the protocol established in the *NTH Memo: Test Boring Inspection.*
- Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device.* Record the VOCFSD reading on the NTH Form: *Log of Test Boring* in the same row as the sample number.

- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. Collect the VOC sample if necessary prior to homogenizing the bag/jar for the remaining sampling. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, direct the contractor to move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

HAND AUGER PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The hand auger is advanced by rotation to the desired depth and removed for the hole. Empty the contents of the bucket onto garbage bag drop cloth.
- Using the *Log of Test Boring or Log of Hand Auger*, identify the material from each bucket using the protocol established in the *NTH Memo: Test Boring Inspection.*
- Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device*. Record the VOCFSD reading on the NTH Form: *Log of Test Boring or Log of Hand Auger* in the same row as the sample number.
- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. Collect the VOC sample if necessary prior to homogenizing the bag/jar for the remaining sampling. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

DECONTAMINATION – AFTER EACH BORING:

- The decontamination area should be in a location suspected to be free from contaminants such as excessive dust or vehicle exhaust.
- Clean the knife with liquinox and rinse it with de-ionized water if it appears dirty or the soil in the previous boring was highly contaminated.
- Ensure the contractor steam cleans the tubes/tooling/augers before reuse.

CONCLUDING ACTIVITIES:

- The boreholes must be filled with bentonite if groundwater is encountered or if a native clay layer is not encountered. If a native clay layer is encountered and if no groundwater is encountered above or into the native clay, the soil cuttings may be returned to the borehole.
- Complete the *Log of Test Boring*
- Complete *Daily Field Report*
- Properly dispose of all waste or ensure that all waste is properly containerized and secured for later disposal.
- Return equipment in usable condition; put battery-operated equipment on charger and re-order consumables.

SOP: Chain-of-Custody Procedures

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- Laboratory Supplied or NTH *Chain-of-Custody Form*

PRELIMINARY ACTIVITIES:

- Coordinate sample pickup / delivery with the laboratory. If sample pickup is not available, prepare proper shipping containers and coordinate sample shipment.

PROCEDURE:

- After each sample is collected and properly labeled, fill out the Chain-of-Custody Form as completely as possible.
  - At a minimum, the following items should be indicated:
    - Sample Name
    - Sample Date
    - Sample Time
    - Preserved (Yes and Type or No)
    - Number of Containers.
  - If possible, indicate if the same was a grab or composite sample.
  - If the analysis to be performed is known, indicate this on the Chain-of Custody-Form. If the analysis is not known, indicate, "HOLD" on the Chain-of-Custody Form.
- The sampler shall retain the samples in a secure fashion until they are picked up by a laboratory representative, shipped / delivered to the laboratory, or transferred to another NTH representative.
- Each time the samples are transferred, both the individual relinquishing and the individual accepting the samples must sign and indicate the date and time on Chain-of-Custody Form.
- If the samples are shipped, the individual delivering or relinquishing the samples to the shipping company shall sign and indicate the date and time on Chain-of-Custody Form.

CONCLUDING ACTIVITIES:

- Retain the back copy of the multi-part Chain-of-Custody Form to confirm sample acceptance or shipment.
- If the samples are sent by carrier, indicate the tracking number on the Chain-of-Custody Form, if possible. Retain all copies of shipping documentation. The shipping documentation becomes part of the Chain-of-Custody and should be attached upon receipt of the analytical results.

SOP: General Guidance

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

PRELIMINARY ACTIVITIES:

- Review and sign the site-specific *Health and Safety Plan*, and acquire appropriate protective gear and equipment.
- Obtain a photocopy of the *Health and Safety Plan*, applicable *insurance forms*, and most recent *certificate of Hazardous Waste Operations and Emergency Response (29 CFR 1910.120) training.*
- Verify schedule 72-hours prior to activities with the owner or site contact and with any contractors to ensure there are no conflicts.
- Gather field equipment, contract documents, and supplemental instructions from the project manager.
- If material will leave the site for disposal, ensure the owner, or owner's representative will be present to sign the manifests, or that NTH has received written authorization to sign on behalf of the owner. Bring a copy of any such *authorization letter*. Make sure to fill out the NTH Form: *Soil Disposal Log* noting each truck as it leaves the site.

FIELD ACTIVITIES:

- Do not take unnecessary risks even if requested by the owner or in an effort to stay on schedule.
- If you will be working in a trafficked area, set up cones, shield yourself with a vehicle, have a spotter or use a traffic control service to ensure your safety while working.
- As the owner's representative, monitor the area to keep bystanders at a sufficient distance to reduce their exposure to danger.
- Avoid talking to any bystanders or media to protect the client's confidentiality, and ensure any contractor does the same.
- Cooperate with regulators, but avoid presenting facts or opinions unless expressly authorized by the client. Direct all questions by regulators to the client or the project manager.
- Take detailed notes on all activities, personnel present, and equipment used. Note arrival and departure times of contractors, trucks, equipment, etc. Take pictures when appropriate.
- If unforeseen conditions arise, contact the project manager for assistance.
- If the owner, client or representative requests additional services in the field, inform the project manager and fill out the NTH form: *Field Change Order Approval* and present to the client to sign.

CONCLUDING ACTIVITIES:

- Ensure contractor leaves the site in a secure and safe manner, providing barricading as necessary to prevent personal injury.

- Double-check all notes and fill in any missing information. Ensure copies of all *waste disposal manifests* are obtained.
- Be neat and clean. Remove all garbage from the site.

SOP QA/QC: Quality Assurance / Quality Control Sampling
State of Michigan Requirements Operational Memorandum
#2 Attachment 5 page 7 of 9

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

	Duplicate Samples			
QA/QC Sample Type	**Collocated**	**Replicate**	**Split**	**MS/MSD**
Recommended Number of QA/QC Samples	1 per 10 or fewer samples per matrix and analytical group, at least 1 per day	When used: 1 per matrix and analytical group per day	When used: 1 per 1 for samples that will be spilt	1 per 20 or fewer samples per matrix and analytical group, at least 1 per day
QA/QC Sample Collection	Individual samples taken from the same location not mixed together and then split.	One sample divided into two or more portions and then analyzed by the same laboratory.	Replicate samples sent to different labs for analysis	Water samples require double volumes. Samples should be taken at critical locations but different from the field blank

Note: Duplicate samples are not required for samples of waste containers

	Blank Samples		
QA/QC Sample Type	**Field**	**Equipment**	**Trip**
Recommended Number of QA/QC Samples	1 per 20 or fewer samples per matrix and analytical group, at least 1 per day	1 per 10 or fewer samples per matrix and analytical group, at least 1 per day	1 per every volatile organic sample shipping container
QA/QC Sample Collection	Fill the sample containers with deionized or distilled water in the area where sample handling and preserving operations occur. Handle and ship the sample as other samples.	Pour deionized or distilled water over or through the sampling equipment and collect rinsate in the sample container. Handle and ship the sample as other samples.	Fill the sample container with deionized water. This is prepared before any sampling is performed and travels to the field and the laboratory with the other sample containers.

SOP: SOIL SAMPLE PREPARATION

Packaging Soil for Laboratory Analysis

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- Disposable gloves at least 2-pair per sample (refer to site specific HASP for type of glove)
- Splash proof Goggles
- Two 8 oz. Jars, One 16 oz. Jar and Methanol Preservation Kits (VOC vials with Teflon lined lids). All jar are provided by the Laboratory
- Labels
- Zip-Lock Bags
- Digital Scale
- Garbage Bags
- Cooler
- Ice
- Documentation Supplies (pen, marker, measuring tape, *Daily Field Report*)
- Laboratory or NTH *Chain-of-Custody*

PRELIMINARY ACTIVITIES:

- Gather equipment and arrange for sample pickup with laboratory.
- Purchase ice
- Calibrate scale according to *NTH SOP: Equipment Check/Calibration.* Record calibration readings in equipment log book and daily field report.
- Open a garbage bag to use as a ground cloth. Position your preparation area away from any sources of contamination such as engine exhausts or excessive dust. This is especially important when collecting samples for volatile analysis.
- Record preservative type and lot / tracking numbers in daily field report. If more than one lot number is used in a sampling event, then record each sample with appropriate lot number.

EQUIPMENT PREPARATION – BEFORE EACH SAMPLE:

- Change gloves
- Label sampling containers using permanent marker.
  - If an adhesive label is not available, label the plastic cap with a permanent marker.
  - The containers should be labeled, at a minimum, with the following:
    - Sample name,
    - Sample date,
    - Initials of sampler,
    - Sample depth

    - Time of sample collection
  - If possible, record if the sample was a grab or composite sample.

SAMPLE PREPARATION– METHANOL PRESERVATION OF SOIL FOR VOLATILE ANALYSIS:

- If there is a chance that the samples will be analyzed for total volatile compounds, you must preserve the soil with methanol in a headspace vial. *Note: No preservation is permitted for TCLP analysis.(See NTH SOP Soil Sample Collection for Leaching Analysis)*
- Place a clean glove or other inert, non-porous material on the scale to prevent soil from contaminating the plate.
- Place a syringe with cap on the scale and press the tare/zero button. Remove cap from syringe and store by scale.
- Expose a section of the soil to be sampled. It is important to sample freshly exposed soil.
- Insert the open end of the syringe into a fresh face of undisturbed soil.
- Immediately cap the syringe. Place the syringe on the scale. The weight of the soil should be 10 grams +/- 0.3 grams. If there is too much soil, extrude some and re-weigh. If there is not enough soil, collect more from the fresh face of undisturbed soil. Record final weight of sample in *Daily Field Report* (*Sample Tracking Log*),
- If methanol is not included with the pre-weighed vial, then removal methanol from storage jar and cut open tube of methanol and pour into vial. Take care not to spill.
- Insert the syringe into the vial so it is close to the methanol and extrude the soil.
- Immediately cap the headspace vial.
- Gently swirl the sample and methanol for 10 seconds to break up the soil. DO NOT SHAKE.
- Place the vial in a zip-lock bag, squeeze the air out of the bag, seal it and place the bag in the ice filled cooler.
- Use the syringe to take another sample of the soil. Cap and label the syringe. This sample will be used for dry weight determination.
- Place syringe in bag with vial and store in ice filled cooler.
- Record the sample on chain of custody form according to the *NTH SOP: Standard Chain-of-Custody Procedures.*

SAMPLE PREPARATION – NON-PRESERVED SOIL SAMPLES:

- Use this method of sample preparation for all analysis except for volatiles.
- Collect a sufficient quantity of soil from the fresh face of undisturbed soil to ensure there is enough for all required analysis. Contact the laboratory for guidance. If there is any doubt, collect extra soil.
- Place the soil in a 16 oz. jar and stir to homogenize the soil. Mix the soil as well as possible. This may require a few minutes for stiff soils.
- Fill a pre-labeled jar with soil. You should fill the jar, but it is not necessary to tightly pack the soil.
- Seal the jar, place it in a Zip-Lock bag, squeeze the air out and place the sealed bag in the ice filled cooler.
- Record the sample on chain of custody form according to the *NTH SOP: Standard Chain-of-Custody Procedures.*

DECONTAMINATION – AFTER EACH SAMPLE:

- The decontamination area should be in a location suspected to be free from airborne VOCs.
- Discard all gloves and used bags
- Replace the ground cloth if it has become soiled.

QUALITY ASSURANCE:

- Collect QA / QC samples in accordance with *NTH SOP: Quality Assurance / Quality Control Sampling.*
- Record QA / QC sample identification and location in *Daily Field Report.*

CONCLUDING ACTIVITIES:

- Label cooler – "CONTAINS LESS THAN 500 mL Methanol"
- Make sure that the cooler weighs less than 64 pounds.
- Complete Laboratory or NTH *Chain-of-Custody* form.
- Turn samples over to laboratory representative. Return any unused methanol to the lab.
- Complete *Daily Field Report.*
- Properly dispose of all waste or ensure that all waste is properly containerized and labeled.
- Return equipment in usable condition, put battery operated equipment on charge or ensure there are spare batteries and re-order consumables.

MUELLER
INDUSTRIES, INC

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

X

Jim Rourke
President – Industrial Products Division

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Mr. Larry AuBuchon
Hazardous Waste/Storage Tank Program Supervisor
Waste & Hazardous Materials Division
Michigan Dept. of Environmental Quality
27700 Donald Court
Warren, MI 48092

December 22, 2008
Proj. No. 73-080913

Subject: Proposed Closure Plan for the former steam-cleaning storage tank system
Mueller Industries, Inc.
Port Huron, Michigan

Dear Mr. AuBuchon:

NTH Consultants, Ltd. (NTH) is submitting a proposed closure plan on behalf of our client Mueller Industries, Inc. (Mueller) for the closure of a former steam-cleaning storage tank and sump area located in Port Huron, Michigan. This proposed closure plan is being submitted consistent with an order / agreement with the US Environmental Protection Agency (US EPA) that has an effective date of September 30, 2008. The order specified that the tank closure be conducted in a manner acceptable to the Michigan Department of Environmental Quality (MDEQ). Therefore, we have developed and are submitting this proposed closure plan / work plan for your review and comment.

The closure of Mueller's former steam-cleaning storage tank area and sump will be completed consistent with the requirements of 40 CFR §265 subpart G, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, specifically §265.111 and §265.114, along with applicable requirements for closures of tank systems as specified in §265.197.

The tank itself was removed on April 1, 2006. The attached work plan / scope of work outlines the activities to be conducted by Mueller to address the remaining elements of the former steam-cleaning storage tank area and sump.

We look forward to working with you as we obtain the necessary information and complete activities to address closure of the former steam-cleaning storage tank area and sump. If you have questions or need additional information please contact either Brad Venman at 517-484-6900, or Kevin Pedler, of Mueller Industries, at 810-987-7770.

Sincerely,

NTH Consultants, Ltd.

Bradley C. Venman
Sr. Vice President

BCV/mjb
Attachment
cc: Barry Munce, Mueller
Kevin Pedler, Mueller
Mark Jacobs, Dykema

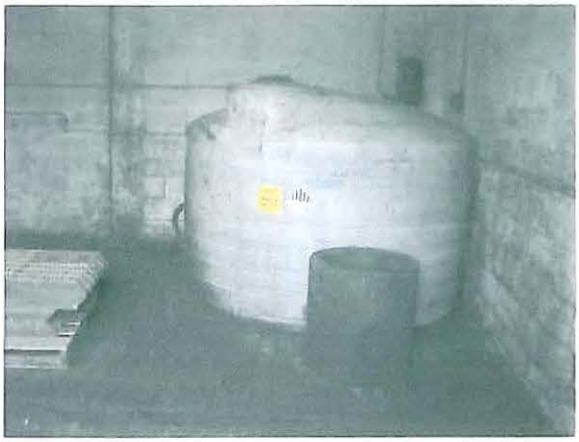
PROPOSED CLOSURE PLAN / WORK PLAN
FORMER STEAM-CLEANING AREA, STORAGE TANK AND SUMP

BACKGROUND

The former steam-cleaning area and storage tank system consisted of an approximate 1,200 gallon plastic tank on top of a grate-covered concrete diked area and sump. The tank was cleaned and removed from service on April 1, 2006. The approximate dimensions of the diked area are 7 ft. by 12 ft.; the concrete sump under a portion of this area is approximately 4 ft. by 6 ft. by 3 ft. deep.

Pieces of equipment were brought to the steam-cleaning room by maintenance personnel, steam cleaned on top of the grate, and the equipment was allowed to dry. Wastewater from the steam cleaning operations drained to the sump and maintenance personnel pumped the collected wash-water from the sump into the plastic tank. The wastewater was periodically removed and disposed off-site as hazardous waste based on waste characterization data indicating the wastewater exhibited characteristics of hazardous waste for lead and sometimes for cadmium.

The following pictures depicting the steam-cleaning room were taken by the US EPA at the time of their inspection of the site in the spring of 2006.



Picture taken 3-31-06; the plastic storage tank was located above the sump in the steam cleaning room.

Picture taken 4-1-06; the plastic storage tank had been cleaned and removed by Mueller.

SCOPE OF WORK

Mueller intends to address the closure of the former steam cleaning tank system as follows:

- Clean and/or decontaminate the steam-cleaning room equipment, grating, pavement surfaces, and surfaces of the concrete sump;
- Characterize, remove, and properly dispose of cleaning residuals from the steam-cleaning room and concrete sump;
- Inspect the cleaned surfaces of the former steam-cleaning pad and concrete sump for cracks or potential damage;
- Investigate the soils beneath and in the immediate vicinity of the steam cleaning pad and concrete sump. Potential sampling locations will be determined based upon the results of the inspection of the decontaminated surfaces. Cracked areas will be targeted for the investigation. It is anticipated that it may not be possible to remove the concrete sump due to its proximity and/or integration with portions of the building's walls. Although the concrete may not be able to be removed, Mueller proposes to core through the concrete/pavement in the former steam-cleaning room to access soils beneath and adjacent to the concrete pad and sump area. Consistent with guidance contained in Chapter 1, section 1.3.1 of the MDEQ's "Sampling Strategies and Statistics Training materials for Part 201 Cleanup Criteria" (S3TM), Mueller intends to collect 3 "floor" soil samples and 4 samples representing "side-wall" soil samples in the vicinity of the concrete sump. Fieldwork and environmental sampling will be conducted consistent with NTH's standard operating procedures referenced in Attachment 1 to this work plan.

  Collected soil samples will be analyzed for the following parameters:

  - Volatile organic chemicals using SW-846 method 8260,
  - Semi-volatile organic chemicals using SW-846 method 8270, and
  - RCRA metals.

The analytical results will be compared to cleanup criteria for soils established according to Part 201, Environmental Remediation (Part 201), of Michigan's Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended (Act 451). This comparison will determine whether waste residuals may have been released from the former steam-cleaning tank system. If the

comparisons with Part 201 criteria indicate residuals from former steam cleaning operations and wastewater management do not exceed criteria applicable to the site, the sump area will be filled with clean, compacted material and new pavement will be installed within the former steam-cleaning room.

To the extent that is practical and/or feasible, Mueller intends to remove contaminated materials and/or soils to achieve closure of the former steam-cleaning room and storage tank system. Decontaminated materials that are removed will be properly recycled or disposed.

ATTACHMENT
EXAMPLE STANDARD OPERATING PROCEDURES

SOP: General Guidance

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

PRELIMINARY ACTIVITIES:

- Review and sign the site-specific *Health and Safety Plan*, and acquire appropriate protective gear and equipment.
- Obtain a photocopy of the *Health and Safety Plan*, applicable *insurance forms*, and most recent *certificate of Hazardous Waste Operations and Emergency Response (29 CFR 1910.120) training.*
- Verify schedule 72-hours prior to activities with the owner or site contact and with any contractors to ensure there are no conflicts.
- Gather field equipment, contract documents, and supplemental instructions from the project manager.
- If material will leave the site for disposal, ensure the owner, or owner's representative will be present to sign the manifests, or that NTH has received written authorization to sign on behalf of the owner. Bring a copy of any such *authorization letter*. Make sure to fill out the NTH Form: *Soil Disposal Log* noting each truck as it leaves the site.

FIELD ACTIVITIES:

- Do not take unnecessary risks even if requested by the owner or in an effort to stay on schedule.
- If you will be working in a trafficked area, set up cones, shield yourself with a vehicle, have a spotter or use a traffic control service to ensure your safety while working.
- As the owner's representative, monitor the area to keep bystanders at a sufficient distance to reduce their exposure to danger.
- Avoid talking to any bystanders or media to protect the client's confidentiality, and ensure any contractor does the same.
- Cooperate with regulators, but avoid presenting facts or opinions unless expressly authorized by the client. Direct all questions by regulators to the client or the project manager.
- Take detailed notes on all activities, personnel present, and equipment used. Note arrival and departure times of contractors, trucks, equipment, etc. Take pictures when appropriate.
- If unforeseen conditions arise, contact the project manager for assistance.
- If the owner, client or representative requests additional services in the field, inform the project manager and fill out the NTH form: *Field Change Order Approval* and present to the client to sign.

CONCLUDING ACTIVITIES:

- Ensure contractor leaves the site in a secure and safe manner, providing barricading as necessary to prevent personal injury.

- Double-check all notes and fill in any missing information. Ensure copies of all *waste disposal manifests* are obtained.
- Be neat and clean. Remove all garbage from the site.

SOP: ENVIRONMENTAL SOIL BORINGS

Using Direct Push, Split Spoon, and Hand Augers

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- VOC Field Screening Device (VOCFSD)
- Soil Sampling Equipment – See *NTH SOP: Soil Sample Preparation*
- Disposable gloves – at least 2-pair per probe
- 1-gallon re-sealable plastic bags OR 16 oz. glass jars – 1 bag/jar for every 2 feet of probing (plastic bags have the potential to contaminate samples with SVOCs)
- Several Garbage Bags
- Hook-blade knife
- Documentation Supplies (pen, marker, measuring tape or wheel, hand level, *Daily Field Report, Log of Test Boring, Log of Geoprobe or Log of Hand Auger*)

PRELIMINARY ACTIVITIES:

- Notify MISS DIG (1-800-482-7171) at least 72-hours in advance of boring locations to clear utilities.
- Verify schedule 72-hours prior to activities with the contractor and with owner to ensure there are no conflicts. Ensure the contractor will bring a rig capable of traversing the terrain of the site.

EQUIPMENT PREPARATION – BEFORE EACH BORING:

- Calibrate the VOCFSD in accordance with *NTH SOP: Equipment Check/Calibration.*
- Select an area for equipment that is free from any airborne contaminants such as excessive dust or vehicle emissions.
- Spread a garbage bag out in the equipment area to use as a ground cloth.
- Fill out the top portion (project, site personnel, and equipment identification) of the *Log of Test Boring Log of Geoprobe or Log of Hand Auger* Form.

PROBING PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The contractor will probe and retrieve a soil sample in a clear acetate liner. Set the liner on the ground cloth in the equipment area. Use a hook-blade knife to make two cuts lengthwise on the liner, enabling you to remove the top half of the liner.

- Using the *Log of Test Boring or Log of Geoprobe*, identify the material in each liner using the protocol established in the *NTH Memo: Test Boring Inspection.*
- Collect a small sample from each two-foot section and place in a bag/jar. Seal the bag / close the lid label the bag/jar with the boring number and the depth. Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor. If the acetate liners are four-feet long, collect two at least bags/jars per liner. If samples will be collected for laboratory analysis. it is important to leave a section of each soil strata in the liner from which to collect an undisturbed sample and replace the liner to minimize the loss of volatile compounds.
- Homogenize the soil in the bag/jar.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device*. Record the VOCFSD reading on the NTH Form: *Log of Test Boring or Log of Geoprobe* in the same row as the sample number.
- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. If possible, the soil sample shall be prepared from the undisturbed soil remaining in the liner. If there is not enough of the contaminated soil remaining in the liner, prepare the sample from the soil placed in the bag/jar. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, direct the contractor to move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

HOLLOW STEM AUGER PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The contractor will drill and retrieve a soil sample in steel split spoon. Count and record the blow counts for the sample on the *Log of Test Boring*. (Note: The intervals sampled and the amount driven, 18-inches or 24-inches will be project specific) Once the spoon is opened, quickly transfer the sample to at least one bag/jar. The drilling contractor will decontaminate the spoon between samples with water and a mild detergent or with a steam cleaner.
- Using the *Log of Test Boring*, identify the material in each spoon using the protocol established in the *NTH Memo: Test Boring Inspection.*
- Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device*. Record the VOCFSD reading on the NTH Form: *Log of Test Boring* in the same row as the sample number.

- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. Collect the VOC sample if necessary prior to homogenizing the bag/jar for the remaining sampling. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, direct the contractor to move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

HAND AUGER PROCEDURE:

- Locate boring location by measuring from two known positions, or mark boring location for later surveying. If possible, avoid using spray paint, as this may cause volatile compounds to appear in your sample.
- The hand auger is advanced by rotation to the desired depth and removed for the hole. Empty the contents of the bucket onto garbage bag drop cloth.
- Using the *Log of Test Boring or Log of Hand Auger*, identify the material from each bucket using the protocol established in the *NTH Memo: Test Boring Inspection*.
- Collect at least one soil sample from each soil type present in the section. Concentrate on soil that appears to be the most contaminated or have the strongest odor.
- Open the bag/jar slightly and take a reading with the VOCFSD. See *NTH SOP #3: Volatile Organic Compound Field Screening Device*. Record the VOCFSD reading on the NTH Form: *Log of Test Boring or Log of Hand Auger* in the same row as the sample number.
- After the boring is completed to the prescribed depth, if samples will be collected for laboratory analysis, collect a soil sample from the interval that had the highest VOCFSD reading, the most soil staining or strongest odor. If no soil showed indications of contamination, collect a sample from the deepest or shallowest interval, a prescribed depth or prescribed soil type. Collect the VOC sample if necessary prior to homogenizing the bag/jar for the remaining sampling. The soil sample shall be prepared according to the *NTH SOP: Soil Sample Preparation.*
- If refusal is encountered before the prescribed depth is reached, move a few feet and try again. If it is believed that refusal is caused by subsurface structures it may be necessary to end the boring at the refusal depth or to move a much larger distance.

DECONTAMINATION – AFTER EACH BORING:

- The decontamination area should be in a location suspected to be free from contaminants such as excessive dust or vehicle exhaust.
- Clean the knife with liquinox and rinse it with de-ionized water if it appears dirty or the soil in the previous boring was highly contaminated.
- Ensure the contractor steam cleans the tubes/tooling/augers before reuse.

CONCLUDING ACTIVITIES:

- The boreholes must be filled with bentonite if groundwater is encountered or if a native clay layer is not encountered. If a native clay layer is encountered and if no groundwater is encountered above or into the native clay, the soil cuttings may be returned to the borehole.
- Complete the *Log of Test Boring*
- Complete *Daily Field Report*
- Properly dispose of all waste or ensure that all waste is properly containerized and secured for later disposal.
- Return equipment in usable condition; put battery-operated equipment on charger and re-order consumables.

SOP: SOIL SAMPLE PREPARATION

Packaging Soil for Laboratory Analysis

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- Disposable gloves at least 2-pair per sample (refer to site specific HASP for type of glove)
- Splash proof Goggles
- Two 8 oz. Jars, One 16 oz. Jar and Methanol Preservation Kits (VOC vials with Teflon lined lids). All jar are provided by the Laboratory
- Labels
- Zip-Lock Bags
- Digital Scale
- Garbage Bags
- Cooler
- Ice
- Documentation Supplies (pen, marker, measuring tape, *Daily Field Report*)
- Laboratory or NTH *Chain-of-Custody*

PRELIMINARY ACTIVITIES:

- Gather equipment and arrange for sample pickup with laboratory.
- Purchase ice
- Calibrate scale according to *NTH SOP: Equipment Check/Calibration.* Record calibration readings in equipment log book and daily field report.
- Open a garbage bag to use as a ground cloth. Position your preparation area away from any sources of contamination such as engine exhausts or excessive dust. This is especially important when collecting samples for volatile analysis.
- Record preservative type and lot / tracking numbers in daily field report. If more than one lot number is used in a sampling event, then record each sample with appropriate lot number.

EQUIPMENT PREPARATION – BEFORE EACH SAMPLE:

- Change gloves
- Label sampling containers using permanent marker.
  - If an adhesive label is not available, label the plastic cap with a permanent marker.
  - The containers should be labeled, at a minimum, with the following:
    - Sample name,
    - Sample date,
    - Initials of sampler,
    - Sample depth

    - Time of sample collection
  - If possible, record if the sample was a grab or composite sample.

SAMPLE PREPARATION– METHANOL PRESERVATION OF SOIL FOR VOLATILE ANALYSIS:

- If there is a chance that the samples will be analyzed for total volatile compounds, you must preserve the soil with methanol in a headspace vial. *Note: No preservation is permitted for TCLP analysis.(See NTH SOP Soil Sample Collection for Leaching Analysis)*
- Place a clean glove or other inert, non-porous material on the scale to prevent soil from contaminating the plate.
- Place a syringe with cap on the scale and press the tare/zero button. Remove cap from syringe and store by scale.
- Expose a section of the soil to be sampled. It is important to sample freshly exposed soil.
- Insert the open end of the syringe into a fresh face of undisturbed soil.
- Immediately cap the syringe. Place the syringe on the scale. The weight of the soil should be 10 grams +/- 0.3 grams. If there is too much soil, extrude some and re-weigh. If there is not enough soil, collect more from the fresh face of undisturbed soil. Record final weight of sample in *Daily Field Report* (*Sample Tracking Log*),
- If methanol is not included with the pre-weighed vial, then removal methanol from storage jar and cut open tube of methanol and pour into vial. Take care not to spill.
- Insert the syringe into the vial so it is close to the methanol and extrude the soil.
- Immediately cap the headspace vial.
- Gently swirl the sample and methanol for 10 seconds to break up the soil. DO NOT SHAKE.
- Place the vial in a zip-lock bag, squeeze the air out of the bag, seal it and place the bag in the ice filled cooler.
- Use the syringe to take another sample of the soil. Cap and label the syringe. This sample will be used for dry weight determination.
- Place syringe in bag with vial and store in ice filled cooler.
- Record the sample on chain of custody form according to the *NTH SOP: Standard Chain-of-Custody Procedures.*

SAMPLE PREPARATION – NON-PRESERVED SOIL SAMPLES:

- Use this method of sample preparation for all analysis except for volatiles.
- Collect a sufficient quantity of soil from the fresh face of undisturbed soil to ensure there is enough for all required analysis. Contact the laboratory for guidance. If there is any doubt, collect extra soil.
- Place the soil in a 16 oz. jar and stir to homogenize the soil. Mix the soil as well as possible. This may require a few minutes for stiff soils.
- Fill a pre-labeled jar with soil. You should fill the jar, but it is not necessary to tightly pack the soil.
- Seal the jar, place it in a Zip-Lock bag, squeeze the air out and place the sealed bag in the ice filled cooler.
- Record the sample on chain of custody form according to the *NTH SOP: Standard Chain-of-Custody Procedures.*

DECONTAMINATION – AFTER EACH SAMPLE:

- The decontamination area should be in a location suspected to be free from airborne VOCs.
- Discard all gloves and used bags
- Replace the ground cloth if it has become soiled.

QUALITY ASSURANCE:

- Collect QA / QC samples in accordance with *NTH SOP: Quality Assurance / Quality Control Sampling.*
- Record QA / QC sample identification and location in *Daily Field Report.*

CONCLUDING ACTIVITIES:

- Label cooler – "CONTAINS LESS THAN 500 mL Methanol"
- Make sure that the cooler weighs less than 64 pounds.
- Complete Laboratory or NTH *Chain-of-Custody* form.
- Turn samples over to laboratory representative. Return any unused methanol to the lab.
- Complete *Daily Field Report.*
- Properly dispose of all waste or ensure that all waste is properly containerized and labeled.
- Return equipment in usable condition, put battery operated equipment on charge or ensure there are spare batteries and re-order consumables.

SOP: Chain-of-Custody Procedures

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

ITEMS REQUIRED:

- Laboratory Supplied or NTH *Chain-of-Custody Form*

PRELIMINARY ACTIVITIES:

- Coordinate sample pickup / delivery with the laboratory. If sample pickup is not available, prepare proper shipping containers and coordinate sample shipment.

PROCEDURE:

- After each sample is collected and properly labeled, fill out the Chain-of-Custody Form as completely as possible.
  - At a minimum, the following items should be indicated:
    - Sample Name
    - Sample Date
    - Sample Time
    - Preserved (Yes and Type or No)
    - Number of Containers.
  - If possible, indicate if the same was a grab or composite sample.
  - If the analysis to be performed is known, indicate this on the Chain-of Custody-Form. If the analysis is not known, indicate, "HOLD" on the Chain-of-Custody Form.
- The sampler shall retain the samples in a secure fashion until they are picked up by a laboratory representative, shipped / delivered to the laboratory, or transferred to another NTH representative.
- Each time the samples are transferred, both the individual relinquishing and the individual accepting the samples must sign and indicate the date and time on Chain-of-Custody Form.
- If the samples are shipped, the individual delivering or relinquishing the samples to the shipping company shall sign and indicate the date and time on Chain-of-Custody Form.

CONCLUDING ACTIVITIES:

- Retain the back copy of the multi-part Chain-of-Custody Form to confirm sample acceptance or shipment.
- If the samples are sent by carrier, indicate the tracking number on the Chain-of-Custody Form, if possible. Retain all copies of shipping documentation. The shipping documentation becomes part of the Chain-of-Custody and should be attached upon receipt of the analytical results.

SOP QA/QC: Quality Assurance / Quality Control Sampling
State of Michigan Requirements Operational Memorandum
#2 Attachment 5 page 7 of 9

The purpose of this SOP is to establish guidelines for NTH field staff to safely and correctly perform field activities and monitoring. The SOP provides basic direction on how to complete required field tasks, and is considered supplemental to project-specific work scopes and contract documents. NTH's standard procedures, including those that are individually modified, are subject to adjustment on each project or element of a project, as the professional applying such procedures deems fit.

	Duplicate Samples			
QA/QC Sample Type	**Collocated**	Replicate	**Split**	**MS/MSD**
Recommended Number of QA/QC Samples	1 per 10 or fewer samples per matrix and analytical group, at least 1 per day	When used: 1 per matrix and analytical group per day	When used: 1 per 1 for samples that will be spilt	1 per 20 or fewer samples per matrix and analytical group, at least 1 per day
QA/QC Sample Collection	Individual samples taken from the same location not mixed together and then split.	One sample divided into two or more portions and then analyzed by the same laboratory.	Replicate samples sent to different labs for analysis	Water samples require double volumes. Samples should be taken at critical locations but different from the field blank

Note: Duplicate samples are not required for samples of waste containers

	Blank Samples		
QA/QC Sample Type	**Field**	**Equipment**	**Trip**
Recommended Number of QA/QC Samples	1 per 20 or fewer samples per matrix and analytical group, at least 1 per day	1 per 10 or fewer samples per matrix and analytical group, at least 1 per day	1 per every volatile organic sample shipping container
QA/QC Sample Collection	Fill the sample containers with deionized or distilled water in the area where sample handling and preserving operations occur. Handle and ship the sample as other samples.	Pour deionized or distilled water over or through the sampling equipment and collect rinsate in the sample container. Handle and ship the sample as other samples.	Fill the sample container with deionized water. This is prepared before any sampling is performed and travels to the field and the laboratory with the other sample containers.

MUELLER INDUSTRIES, INC.

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

X

Jim Rourke
President – Industrial Products Division

A.4.5

MUELLER BRASS CO.

PORT HURON, MICHIGAN 48060

Area Code 313
Tel: 987-4000

April 15, 1987

Ms. Sharon Johnson
United States Environmental Protection Agency
Region 5
230 South Dearborn St.
Chicago, IL 60604

Attention: 5HE-12

Reference: Letter of Warning - Dated April 8, 1987
RCRA Financial Responsibility
U.S. EPA ID #: MID 005357504
Mueller Brass Co.

Dear Ms. Johnson:

Please find enclosed Mr. Karl J. Klepitsch's, Chief Waste Management Branch, letter dated October 23, 1984, approving Mueller Brass Company's change in status from a Resource Conservation and Recovery Act (RCRA) treatment, storage and disposal facility to a generator - only.

The letter is for your file as you requested in your telephone conversation with Mr. Mancini on April 14, 1987.

Please feel free to contact me should you have any questions or require further information regarding this matter.

Respectfully,
Mueller Brass Co.

D. F. Bringman
Facility Engineer

DFB/bad

cc: Director of the Michigan Department
of Natural Resources
Attn: Hazardous Waste Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

APR 0 8 1987

REPLY TO THE ATTENTION OF:
5HE-12

U.S. EPA ID #: MID005357504

MUELLER BRASS CO
1925 LAPEER AVE
PORT HURON MI 48060

Re: Letter of Warning
RCRA Financial Responsibility

Dear Owner/Operator:

On October 30, 1986, the State of Michigan was granted final authorization by the Administrator of the United States Environmental Protection Agency (U.S. EPA) to administer a hazardous waste program in lieu of the Federal program. As a result of final authorization, Michigan is required to enforce the provisions of the Resource Conservation and Recovery Act (RCRA). One of these provisions (40 CFR Part 265, Subpart H) requires all hazardous waste facilities to demonstrate financial responsibility for closure/post-closure care and liability coverage.

In preparation for the transfer of financial responsibility documents to Michigan, we have reviewed our files for the adequacy of these documents. This file review has indicated that the above facility is in apparent violation of the Michigan Hazardous Waste Management Act, 1979 PA 64, Part 7 (the Michigan equivalent of 40 CFR Part 265, Subpart H) for the following reason(s):

☒ Failure to provide adequate financial assurance coverage for closure/post-closure costs (i.e., trust agreement, surety bond, letter of credit, certificate of insurance, financial test and corporate guarantee)

☒ Failure to provide adequate coverage for sudden accidental occurrences (i.e., liability insurance and/or financial test)

☐ Failure to provide adequate coverage for nonsudden accidental occurrences (i.e., liability insurance and/or financial test)

Please review your records and submit the appropriate documents within thirty days of receipt of this letter to the Director of the Michigan Department of Natural Resources, P.O. Box 30028, Lansing, Michigan 48909, ATTENTION: Hazardous Waste Division.

If you have any questions or desire additional information, please contact Ms. Sharon Johnson or Mr. Ronald Brown of my staff at (312) 886-4581 or (312) 353-7921, respectively.

Sincerely yours,

Wm. E. Muno

William E. Muno, Chief
RCRA Enforcement Section

cc: John Bohunsky, MDNR